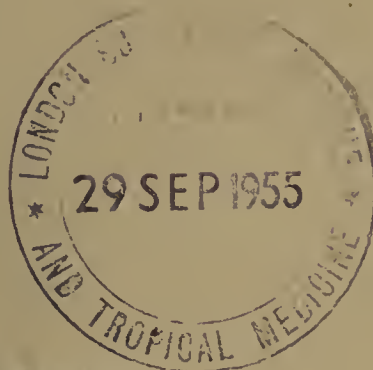




REPUBLIC OF EGYPT

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MINISTRY OF PUBLIC HEALTH, EGYPT



# ANNUAL REPORT

ON THE WORK OF THE

# Ministry of Public Health

for the Year 1950

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GOVERNMENT PRESS, CAIRO, 1955

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# CONTENTS

## Part I. — PUBLIC HEALTH

Chapter		PAGE
I.—	Vital Statistics ... ..	1
II.—	Infectious Diseases ... ..	16
III.—	Frontier Districts Medical Service... ..	44
IV.—	Nutrition ... ..	54
V.—	Permits... ..	58
VI.—	Rural Health ... ..	59
VII.—	Quarantine ... ..	74
VIII.—	Food Control ... ..	90

## Part II. — SOCIAL HYGIENE

Chapter IX.—	Maternity and Child Welfare ... ..	96
X.—	Chest Diseases ... ..	98
XI.—	Venereal and Skin Diseases ... ..	124
XII.—	Mental Health ... ..	136
XIII.—	Health Education and Social Services... ..	138

## Part III.— TREATMENT

Chapter XIV.—	General Hospitals ... ..	141
XV.—	Ophthalmic Hospitals ... ..	147
XVI.—	Pharmacies ... ..	149
XVII.—	Universities Hospitals ... ..	150

## Part IV.— ENDEMIC DISEASES

Chapter XVIII.—	Ancylostoma and Bilharzia Treatment... ..	152
XIX.—	Malaria... ..	157
XX.—	Insects Control ... ..	180
XXI.—	Bilharzia Snail Control ... ..	192
XXII.—	Leprosy Control... ..	196

## Part V.— RESEARCHES AND LABORATORY EXAMINATIONS

ChapterXXIII.—	Summary of the Work of the Department of Laboratories .. ..	206
XXIV.—	Summary of the Work of the Research Institute for Tropical Diseases... ..	207
XXV.—	Summary of the Work of the Memorial Ophthalmic Laboratory, Giza .. ..	211

## Part VI.— APPENDICES

Appendix I.—	Medical Permits... ..	212
II.—	Medical Commissions ... ..	215
III.—	Central Stores ... ..	220
IV.—	Budget Credits and Details of Posts ... ..	222
V.—	International Health... ..	225
VI.—	Summary of Report on the State of Public Health in Alexandria ... ..	229
VII.—	Report on the Work of Cairo City Health Department... ..	231



# MINISTRY OF PUBLIC HEALTH

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## ANNUAL REPORT FOR THE YEAR 1950

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### Part I.—PUBLIC HEALTH

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#### Chapter I.—Vital Statistics

##### *A. Population :*

The estimated population of Egypt in mid-year 1950 totalled 20,392,600, i.e. an increase of 408,000 inhabitants over 1949. This increase represents an average increase of 2% per year of the Egyptian population, which is very high and calls for some urgent measures.

Table No. 1 gives the age and sex distribution of the whole population and ratio of each age group per thousand of the population. Two facts are evident, namely that the ratios for age groups up to thirty years are high and those for age groups over that age are low. The former indicates that the Egyptian population is young. The latter indicates that the average age on death is relatively young, which means that more efforts in the field of health are needed.

##### *B. Births :*

The total number of births for all Egypt during the year was 904,941 or 44.4 per thousand of population as against 41.9 in 1949. Table No. 2 shows that the 1950 birth rate is the highest since the outbreak of World War II. It may be explained by the economic progress that marked the war period and subsequent years and the resulting increase in marriages during the quiet times that followed the end of hostilities. On the whole, the birth-rate in Egypt is very high when compared with rates of other countries. It is, in fact, one of the highest throughout the world. During the past ten years, the birth-rate varied between 38.2 in 1942 and 44.4 in 1950.

The highest birth rate of 64.4 per thousand of population was recorded in Suez. The lowest, 29 per thousand, was recorded in Qena Province. It is presumed that the low birth-rates in Qena and most Upper Egypt Provinces are due to men's migration in search of livelihood elsewhere (Table No. 7).

Table No. 4 shows that February marks the highest birth rate of 50.1 per thousand and September marks the lowest rate of 39.8. Again, this table shows that males predominate, being a hundred to every 91.7 females.

##### *C. Deaths :*

A total of 388,944 deaths were reported throughout Egypt during the year under review, or a death-rate of 19.1 per thousand of population, as against 20.6 in 1949.

According to table No. 2, the 1950 death-rate was the lowest during the past ten years. It will be also observed that the average deaths are fewer year after year.

The highest death-rate of 26 per thousand of population was also recorded in Suez; the lowest, 11.4, was in Qena (Table No. 7). It is suggested that the low death rates in Qena and most Upper Egypt provinces are due to failure in reporting deaths. The high death rate at Suez is again the result of migration of Upper Egyptians seeking work with oil refineries, and chemical and other industries. Table No. 3 shows that the highest death rate of 22.8 per thousand of population was recorded during the third quarter; the lowest, 16.3, was recorded during the first quarter.



#### *D. Age and Sex Distribution of Deaths :*

Table No. 8 gives the age and sex distribution of deaths. It shows that more than half the deaths, 56 % of total deaths, occur within the first five years of life. It is of interest to know that the decrease in 1950 deaths as compared with the 1949 deaths is manifest in all age groups except the over 80 years age group.

It will be also observed that the male death rate is higher than the female, being 877 female deaths to a thousand males. Again, this is common in all age groups except the 85 years age group.

#### *E. Infantile Mortality :*

The total number of infantile deaths in all Egypt was 117,283 or a ratio of 130 per thousand live births as against a ratio of 135 in 1949.

In localities having health offices, 69,446 infantile deaths were recorded with a ratio of 170.8 per thousand live births. The ratio was 174.7 in the previous year.

Table No. 9 shows that diarrhoea and enteritis continue to be the main causes of infantile deaths. Congenital debility comes next in importance.

Table No. 10 gives details of infantile deaths in localities having health offices distributed according to age groups and causes of death. According to this table, more than one fifth of the deaths occur within the first month of life. 85% of these were due to congenital debility. After the first month, diarrhoea and enteritis play the first role in infantile deaths. Table No. 6 *a* shows that the highest infantile mortality rate during the year, 175, was recorded in the Governorates, the lowest, 111, was in Lower Egypt provinces. It was 126 in Upper Egypt provinces.

#### *F. Still Births :*

The still birth rate for all Egypt was 6.9 per thousand births. This was 16.7 in the Governorates, 4.1 in Lower Egypt provinces and 4.3 in Upper Egypt provinces as against 7.17, 4.3 and 4.1 respectively in the previous year. The higher rate in the governorates may be explained by a more accurate reporting than in the provinces.

**TABLE No. 1.—ESTIMATED POPULATION BY AGE AND SEX IN 1950, AND PROPORTION  
PER 100,000 AT ALL AGES**

Age groups										Population			Proportion per 100,000 of total groups
										Males	Females	TOTAL	
0-4 years	...	...	...	...	...	...	...	...	...	1,378,900	400,200	2,779,100	136·3
5-9	„	...	...	...	...	...	...	...	...	1,302,700	1,277,800	2,580,500	126·5
10-14	„	...	...	...	...	...	...	...	...	1,231,100	1,149,100	2,380,200	116·7
15-19	„	...	...	...	...	...	...	...	...	1,060,400	984,200	2,044,600	100·3
20-24	„	...	...	...	...	...	...	...	...	730,400	757,400	1,487,800	73·0
25-29	„	...	...	...	...	...	...	...	...	739,000	843,700	1,582,700	77·6
30-34	„	...	...	...	...	...	...	...	...	668,200	739,700	1,407,900	69·0
35-39	„	...	...	...	...	...	...	...	...	710,500	701,200	1,411,700	69·3
40-44	„	...	...	...	...	...	...	...	...	613,300	607,500	1,220,800	59·9
45-49	„	...	...	...	...	...	...	...	...	461,800	445,400	907,200	44·5
50-54	„	...	...	...	...	...	...	...	...	453,900	481,100	935,000	45·8
55-59	„	...	...	...	...	...	...	...	...	184,400	185,700	370,100	18·1
60-64	„	...	...	...	...	...	...	...	...	271,600	320,500	592,100	29·0
65-69	„	...	...	...	...	...	...	...	...	90,300	88,100	178,400	8·7
70-74	„	...	...	...	...	...	...	...	...	116,200	146,700	262,900	12·9
75-79	„	...	...	...	...	...	...	...	...	25,300	25,800	51,100	2·5
80-84	„	...	...	...	...	...	...	...	...	37,500	56,500	94,000	4·6
85 years and over	...	...	...	...	...	...	...	...	...	18,600	25,200	43,800	3·1
Not stated	...	...	...	...	...	...	...	...	...	27,000	35,700	62,700	3·1
TOTAL										10,121,100	10,271,500	20,392,600	—

TABLE NO. 2.—BIRTHS, DEATHS AND RATES PER 1,000 OF POPULATION  
AND INFANTILE MORTALITY-RATE 1939-1950

Year	Births	Deaths	Natural Increase	Birth-rate per 1,000 pop.	Death rate per 1,000 pop.	Inf. Mortality rate per 1,000 births
1939 ... ..	696,746	429,033	267,713	42·2	26·0	161
1940 ... ..	697,700	444,448	253,252	41·6	26·5	161
1941 ... ..	695,016	440,981	254,035	40·8	25·9	150
1942 ... ..	658,324	494,358	163,966	38·2	28·7	168
1943 ... ..	689,771	492,644	197,127	39·6	28·3	160
1944 ... ..	722,166	472,234	249,932	41·0	26·8	152
1945 ... ..	787,502	512,003	275,499	43·9	28·6	153
1946 ... ..	774,152	469,382	304,770	42·6	25·8	141
1947 ... ..	834,557	408,577	425,980	43·5	21·3	127
1948 ... ..	832,728	397,976	434,752	42·5	20·3	139
1949 ... ..	836,516	410,524	425,992	41·9	20·6	135
1950 ... ..	904,941	388,944	515,997	44·4	19·1	130



TABLE No. 3.—QUARTERLY DISTRIBUTION OF DEATHS AND DEATH-RATES PER 1,000 OF POPULATION  
FOR ALL EGYPT 1941-1950

Years	Male Deaths				Female Deaths				Total Number of Deaths				Annual Death-Rates per 1,000 persons living			
	Quarter ended				Quarter ended				Quarter ended				Quarter ended			
	March	June	September	December	March	June	September	December	March	June	September	December	March	June	September	December
1941	...	...	...	...	48,979	63,062	68,650	58,503	40,231	59,768	59,361	47,427	89,210	117,830	128,011	105,930
1942	...	...	...	...	57,024	78,544	70,071	62,740	47,208	68,590	51,874	50,307	104,232	147,134	129,945	113,047
1943	...	...	...	...	58,690	69,137	71,461	70,096	47,015	58,712	61,239	56,294	105,705	127,849	132,700	126,390
1944	...	...	...	...	61,059	69,029	70,457	57,025	48,733	59,308	60,175	46,448	109,793	128,337	130,632	103,473
1945	...	...	...	...	55,687	69,307	85,914	66,032	44,935	60,612	75,509	54,007	100,622	129,919	161,423	120,039
1946	...	...	...	...	71,014	72,047	64,521	53,089	51,415	61,661	55,845	44,790	117,429	133,708	120,366	97,879
1947	...	...	...	...	43,030	49,577	60,302	67,938	35,468	42,657	52,105	57,500	78,498	92,234	112,407	125,438
1948	...	...	...	...	42,411	52,638	66,696	50,473	36,494	47,616	60,151	41,497	78,905	100,254	126,847	91,970
1949	...	...	...	...	48,324	62,098	63,321	44,358	41,159	56,776	56,896	37,592	89,483	118,874	120,217	81,950
1950	...	...	...	...	44,189	51,675	61,568	49,732	37,474	45,958	55,705	42,643	81,663	97,633	117,273	92,375

TABLE No. 4.--MONTHLY DISTRIBUTION OF BIRTHS AND DEATHS AND RATES PER 1,000  
OF POPULATION, EGYPT, 1950

Month	Births			Birth rate per 1000 pop.	Deaths			Death rate per 1,000 pop.
	Males	Females	TOTAL		Males	Females	TOTAL	
January ... ..	45,081	39,951	85,032	49·1	15,846	13,483	29,329	16·9
February... ..	40,688	37,696	78,384	50·1	14,218	11,988	26,206	16·8
March ... ..	42,704	39,091	81,795	47·3	14,125	12,003	26,128	15·1
April ... ..	39,677	36,651	76,328	45·6	15,298	13,194	28,492	17·0
May ... ..	36,968	33,792	70,760	40·9	17,571	15,675	33,246	19·2
June ... ..	36,561	33,029	69,590	41·5	18,806	17,089	35,895	21·4
July ... ..	39,895	36,498	76,393	44·1	22,313	20,553	42,866	24·8
August ... ..	38,806	35,566	74,372	43·0	21,548	19,613	41,161	23·8
September ... ..	34,849	31,772	66,621	39·8	17,707	15,539	33,246	19·8
October ... ..	39,006	35,447	74,453	43·0	17,400	14,923	32,323	18·7
November ... ..	36,838	34,303	71,141	42·5	15,845	13,508	29,353	17·5
December ... ..	41,104	38,968	80,072	46·3	16,487	14,212	30,699	17·7
TOTAL ... ..	472,177	432,761	904,941	44·4	207,164	181,780	388,944	19·1

TABLE No. 5.—MONTHLY DEATH-RATES PER 1,000 POPULATION

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January ... ..	33·3	24·6	26·0	28·0	23·6	25·8	19·0	15·9	18·9	16·9
February ... ..	19·1	24·1	21·7	23·3	20·9	24·5	15·9	16·4	18·5	16·8
March ... ..	20·6	23·8	25·1	23·4	22·8	27·3	14·8	16·2	17·3	15·1
April ... ..	22·6	27·8	26·0	25·3	21·9	27·1	16·3	15·4	18·4	17·0
May ... ..	29·4	34·2	30·3	29·2	29·1	30·3	18·8	20·0	24·4	19·2
June ... ..	31·1	39·5	31·8	32·8	36·1	30·9	22·9	26·2	28·9	21·4
July ... ..	32·3	33·9	33·8	33·7	39·1	29·0	25·5	27·4	27·2	24·8
August ... ..	31·8	28·1	31·3	29·9	37·3	26·5	23·3	27·0	24·7	23·8
September ... ..	26·1	24·8	26·3	25·2	31·5	24·1	21·0	22·7	19·7	19·8
October ... ..	24·7	25·1	29·5	24·3	27·7	22·6	38·2	19·2	16·7	18·7
November ... ..	24·5	25·4	27·5	23·3	25·0	20·1	22·9	18·2	15·7	17·5
December ... ..	25·4	25·6	30·0	22·8	27·7	22·0	16·7	18·6	16·5	17·7
TOTAL ... ..	25·9	28·7	28·3	26·8	28·6	25·8	21·3	20·3	20·6	19·1



TABLE No. 6.—BIRTHS, DEATHS AND INFANTILE MORTALITY BY GOVERNORATES AND PROVINCES, EGYPT

Localities	1941			1942			1943			1944			1945		
	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.
Cairo ...	62,774	40,165	12,441	65,231	52,081	16,159	76,148	54,065	18,023	85,788	53,583	18,420	90,467	50,559	18,749
Alexandria ...	20,414	16,972	3,945	25,205	18,475	5,149	32,986	24,313	8,259	39,846	22,486	8,661	42,816	26,764	10,355
Ismailia ...	2,303	2,208	443	2,412	2,086	473	3,605	2,411	678	4,250	2,632	780	4,562	2,344	766
Port Said ...	4,243	2,905	739	5,173	3,561	952	6,207	3,393	1,132	7,852	4,075	1,456	7,723	3,942	1,445
Darnietta ...	2,057	1,018	286	1,853	1,291	322	1,833	977	276	2,365	971	348	2,610	1,270	481
Suez ...	2,585	2,258	615	3,544	2,982	395	4,756	4,118	1,251	5,112	4,439	1,447	5,635	3,612	1,372
Frontier Districts ...	3,890	3,746	825	3,829	2,756	631	4,232	2,783	738	5,283	2,796	716	5,990	2,757	779
Behera ...	42,770	28,744	5,206	40,592	28,479	4,898	41,465	26,182	4,507	44,383	26,396	4,728	50,709	28,886	5,300
Dakahlia ...	60,776	40,318	9,527	54,709	45,622	9,357	55,825	41,245	8,242	60,961	35,227	8,644	65,092	43,323	10,333
Gharbia ...	92,553	56,442	11,761	83,155	63,456	12,139	85,688	60,778	11,703	91,008	54,444	11,753	96,485	65,376	13,254
Menoufia ...	54,362	35,898	8,442	48,233	40,580	9,389	50,660	37,976	8,375	49,801	38,515	8,513	52,051	39,751	8,512
Qalubia ...	28,911	19,681	4,634	27,391	21,929	4,902	29,800	19,589	4,813	29,331	19,785	4,758	32,324	21,199	5,023
Sharkia ...	48,703	31,501	6,603	48,171	2,808	6,536	49,840	31,498	6,288	50,957	32,430	5,641	53,844	35,354	6,715
Aswau ...	11,167	7,731	1,482	9,915	10,963	1,558	6,456	14,943	1,386	5,696	9,243	769	12,461	6,054	1,272
Assint ...	52,986	33,410	8,186	49,279	36,790	8,164	47,866	33,789	7,098	48,916	32,957	6,814	53,322	41,841	7,455
Beri-Suef ...	22,292	11,862	2,657	21,282	14,144	3,070	22,175	14,000	3,070	22,402	13,112	2,807	22,069	17,436	3,128
Fayoum ...	26,451	17,818	5,353	25,955	18,405	5,097	26,041	18,132	4,926	26,227	19,787	5,021	27,582	19,465	5,156
Gerga ...	47,968	25,480	5,611	42,963	28,445	5,255	41,319	27,901	4,690	42,667	23,566	3,981	44,217	24,560	3,916
Giza ...	33,981	20,796	5,363	32,277	25,353	6,327	34,145	24,230	5,882	35,793	22,766	6,012	38,838	24,827	6,312
Minia ...	39,503	23,316	6,312	36,697	25,484	6,207	38,104	25,944	6,269	39,394	26,636	6,199	42,202	36,006	7,193
Qena ...	34,013	18,717	3,969	30,459	18,668	3,357	30,630	24,377	2,914	24,399	26,395	2,551	36,501	16,647	2,819
TOTAL ...	695,016	440,981	104,402	658,324	494,358	110,847	689,771	492,644	110,520	722,166	472,234	110,020	787,502	512,003	120,366



TABLE 6.— BIRTHS, DEATHS AND INFANTILE MORTALITY BY GOVERNORATES AND PROVINCES (Contd.)

Localities	1946			1947			1948			1949			1950		
	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.
Cairo ...	94,831	52,511	19,006	99,866	44,196	17,213	100,005	52,672	19,940	104,047	50,338	17,099	113,028	49,154	20,404
Alexandria ...	44,860	20,540	8,391	46,231	22,380	8,860	48,374	20,436	8,472	49,187	22,849	9,061	53,170	21,829	9,267
Ismailia ...	4,579	2,255	745	5,119	2,597	771	5,701	2,584	914	7,285	3,068	1,083	8,329	3,000	1,088
Port Said ...	7,608	3,388	1,217	8,594	3,165	1,105	8,070	3,513	1,115	8,952	3,416	1,195	8,806	3,789	1,403
Damietta ...	2,580	1,001	353	2,798	1,103	367	2,803	991	305	2,714	1,057	373	2,975	1,026	398
Suez ...	5,546	3,255	1,166	5,757	2,624	1,023	6,183	3,054	1,156	6,493	3,139	1,155	7,622	3,079	1,347
GOVERNORATES	—	—	—	—	—	—	—	—	—	—	—	—	193,930	81,877	33,907
Frontier Districts ...	6,411	3,075	995	7,177	2,675	855	6,800	2,733	927	7,496	2,730	915	7,475	2,524	921
Behera... ..	49,091	25,743	4,753	49,796	25,861	5,516	50,776	21,285	4,955	50,146	21,931	4,937	54,750	20,362	4,922
Dakahlia ...	63,688	37,106	8,625	67,008	38,385	8,258	69,363	31,981	9,421	68,767	33,666	9,023	73,928	29,766	8,485
Fouadia ...	—	—	—	—	—	—	—	—	—	—	—	—	33,880	10,910	2,613
Gharbia ...	98,428	56,573	11,797	102,185	57,732	11,070	107,125	46,709	13,116	108,235	48,951	12,286	84,491	33,497	9,263
Menoufia ...	50,115	38,966	7,853	55,843	32,727	7,926	56,025	31,605	9,216	54,988	34,444	9,021	60,102	29,216	8,294
Qaliubia ...	31,974	20,980	4,690	34,093	17,475	4,526	34,919	19,467	5,808	33,796	18,239	5,112	37,513	17,031	5,094
Sharkia ...	53,377	32,647	6,406	52,557	32,073	6,070	56,424	28,320	7,016	55,417	28,251	6,657	60,419	24,293	6,129
LOWER EGYPT	—	—	—	—	—	—	—	—	—	—	—	—	445,083	165,075	44,800
Aswan ...	10,635	5,225	1,173	11,343	5,188	1,255	10,734	5,012	1,246	15,913	5,074	1,243	11,954	5,844	1,461
Assiut ...	52,048	35,562	6,753	55,383	25,426	6,557	53,562	26,343	6,098	52,981	28,193	6,461	56,471	28,029	7,079
Beni-Suef ...	24,071	13,698	2,586	26,010	11,465	2,607	24,780	11,329	2,746	24,218	12,311	3,015	26,422	10,937	2,903
Fayoum ...	25,930	18,926	4,326	31,665	14,975	4,388	27,994	16,425	4,255	28,914	17,005	4,635	32,120	16,690	5,176
Gerga ...	41,809	25,952	3900	46,602	16,975	3,397	43,335	18,008	3,439	40,716	19,336	3,127	45,725	20,645	4,599
Giza ...	36,274	27,016	6,368	43,682	19,799	5,943	41,165	21,180	6,465	38,888	21,256	5,763	44,982	21,225	6,865
Minia ...	36,519	26,938	4,847	47,085	18,921	5,332	44,530	20,897	5,696	44,284	21,748	5,769	46,740	22,708	6,225
Qena ...	33,778	18,025	3,041	35,760	12,830	2,782	34,060	13,432	3,115	33,049	13,525	2,710	34,039	13,390	3,347
UPPER EGYPT	—	—	—	—	—	—	—	—	—	—	—	—	298,453	139,468	37,655
TOTAL	774,152	469,382	109,023	834,557	408,577	105,821	832,728	397,976	115,422	836,546	410,524	112,644	904,944	388,944	117,283

TABLE No. 6 a.—BIRTH, DEATH AND INFANTILE MORTALITY RATES BY GOVERNORATES AND PROVINCES

Localities	1941			1942			1943			1944			1945		
	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.
Cairo ...	45.0	28.8	198	46.3	36.9	247	53.1	37.7	237	58.9	36.8	215	60.5	33.8	207
Alexandria ...	28.0	23.3	193	34.3	25.2	204	44.4	32.7	250	52.7	29.7	217	55.5	34.7	242
Ismailia ...	68.6	42.9	235	44.7	38.5	214	61.4	41.1	188	70.9	43.9	184	73.7	37.9	168
Port-Saïd ...	31.5	21.6	169	38.3	26.5	183	44.9	24.6	182	53.8	28.9	192	53.4	27.5	187
Damietta ...	46.5	23.0	139	41.1	28.8	174	40.1	21.4	151	50.8	20.9	147	54.3	26.4	184
Suez ...	47.3	44.0	254	66.1	58.1	288	84.9	73.5	263	90.6	78.7	243	97.3	63.4	244
Frontier Districts ...	35.6	31.6	176	32.2	23.3	165	35.3	23.2	174	43.2	22.8	135	48.0	22.1	130
Behera ...	37.9	25.5	122	30.7	25.0	121	35.9	22.7	109	37.9	22.5	107	42.8	24.2	105
Dakahlia ...	46.4	30.8	157	41.3	34.5	171	41.8	31.9	148	45.0	26.0	142	47.1	31.3	159
Gharbia ...	43.9	36.3	127	39.1	32.9	146	39.7	28.2	137	41.6	24.9	129	43.4	29.4	137
Menoufia ...	44.4	29.3	155	38.9	29.7	195	40.6	30.4	165	39.6	30.6	171	40.9	31.2	164
Qaliubia ...	44.5	30.3	160	41.8	33.5	119	44.8	29.5	162	43.6	29.4	162	47.7	30.4	100
Sbarkia ...	41.1	26.6	136	40.1	27.3	136	40.9	25.8	126	41.2	26.2	111	42.8	28.1	125
Aswan ...	35.1	24.3	133	30.8	34.1	157	20.3	47.1	215	18.6	30.1	143	40.0	19.5	102
Assint ...	41.0	25.9	154	37.7	28.1	166	36.2	25.6	148	36.6	24.7	139	39.4	30.9	140
Beni-Suef ...	37.1	19.7	119	34.9	23.2	144	35.9	22.7	138	35.8	20.9	125	34.8	27.5	142
Fayoum ...	41.8	28.1	202	40.5	28.7	196	40.1	27.9	189	40.0	30.1	191	41.5	29.3	187
Gerga ...	39.4	21.9	117	34.8	23.0	122	33.1	22.3	114	33.7	18.6	93	34.3	19.1	89
Giza ...	45.4	27.8	158	42.6	33.5	196	44.5	31.6	172	46.1	29.2	168	48.9	31.3	163
Minia ...	40.0	23.6	160	36.6	25.4	169	37.6	25.6	165	38.3	25.9	157	40.6	34.6	170
Qena ...	31.2	17.2	117	27.6	16.9	110	27.5	21.9	95	22.0	23.8	105	32.5	14.8	77
<b>TOTAL ...</b>	<b>40.8</b>	<b>25.9</b>	<b>150</b>	<b>38.2</b>	<b>28.7</b>	<b>167</b>	<b>39.6</b>	<b>28.3</b>	<b>160</b>	<b>41.0</b>	<b>26.8</b>	<b>152</b>	<b>43.9</b>	<b>28.6</b>	<b>153</b>



TABLE No. 6 a—BIRTH, DEATH AND INFANTILE MORTALITY RATES BY GOVERNORATES AND PROVINCES (contd.)

Localities	1946			1947			1948			1949			1950		
	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.	Birth	Death	Inf. M.
Cairo ...	61.9	34.3	200	47.5	21.0	172	46.8	24.7	199	47.8	23.1	184	50.5	22.0	181
Alexandria ...	66.6	25.9	187	49.8	24.1	192	50.7	21.4	175	50.2	23.3	184	52.9	21.7	174
Ismailia ...	71.2	35.0	162	74.9	38.0	151	50.9	23.1	160	63.5	26.7	149	59.5	21.4	131
Port Said ...	51.1	22.7	159	48.1	17.7	129	43.1	19.1	138	47.4	18.1	133	45.0	19.4	159
Damietta ...	52.1	20.2	136	52.1	20.5	131	50.3	17.8	109	47.3	18.4	137	50.2	17.3	134
Suez ...	92.4	54.2	210	53.1	24.2	178	55.1	27.2	187	56.4	27.3	178	64.4	26.0	177
GOVERNORATES	—	—	—	—	—	—	—	—	—	—	—	—	51.6	23.5	175
Frontier Districts ...	50.0	23.9	155	42.8	15.9	119	39.3	15.8	136	42.3	15.4	122	42.6	14.4	123
Behera...	40.6	21.3	97	40.0	20.8	111	39.7	16.6	98	38.3	16.8	98	40.9	15.2	20
Dakahlia ...	45.5	26.5	135	47.3	27.1	123	47.7	22.0	136	46.2	22.6	131	48.4	19.5	115
Fouadia ...	—	—	—	—	—	—	—	—	—	—	—	—	41.9	13.6	77
Gharbia ...	43.7	25.1	119	43.7	24.7	108	44.6	19.5	122	44.1	19.9	113	49.5	19.6	110
Menoufia ...	39.2	30.5	175	47.7	28.0	142	46.7	26.4	164	45.1	28.3	164	48.3	23.5	138
Qaliubia ...	46.1	30.3	146	49.6	25.4	133	48.9	27.3	166	46.5	25.1	151	50.0	22.7	135
Sharkia ...	42.0	25.7	120	38.7	23.6	115	41.9	21.0	124	40.4	20.6	120	44.1	17.7	101
LOWER EGYPT	—	—	—	—	—	—	—	—	—	—	—	—	46.3	18.9	111
Aswan ...	33.7	16.5	110	39.6	18.1	111	36.1	16.9	116	52.1	16.6	78	38.7	18.9	122
Assiut ...	38.3	26.2	129	40.1	18.4	118	38.0	18.7	113	37.0	19.7	122	38.6	19.2	125
Beni-Suef ...	37.7	21.4	107	42.4	18.6	100	39.4	18.0	111	37.7	19.2	124	40.3	16.7	110
Fayoum ...	38.8	28.3	166	47.1	22.2	139	40.6	23.8	152	41.3	24.3	160	45.0	23.4	161
Gerga ...	32.1	19.9	93	36.1	13.1	73	32.7	13.6	79	30.2	14.4	77	33.5	15.1	101
Giza ...	45.2	33.7	175	53.1	24.1	136	46.8	24.1	157	43.4	23.7	148	49.1	23.2	153
Minia ...	35.2	25.9	132	44.3	17.8	113	41.4	19.4	128	40.3	19.8	130	41.6	20.2	133
Qena ..	29.7	15.8	90	32.1	11.9	91	28.7	11.8	91	28.7	11.8	82	29.0	11.4	98
UPPER EGYPT	—	—	—	—	—	—	—	—	—	—	—	—	38.7	18.1	126
TOTAL	42.6	25.8	141	43.5	21.3	127	42.5	20.3	139	41.9	20.6	135	44.4	19.1	130



TABLE No. 7.—BIRTHS, DEATHS, INFANTILE MORTALITY AND RATES  
BY GOVERNORATES AND PROVINCES, EGYPT, 1950

Localities	Births	Birth-rate per 1000 pop.	Deaths	Death-rate per 1000 pop.	Infantile Mortality	Inf. M. rate per 1000 births
Cairo ... ..	113,028	50·5	49,154	22·0	20,404	181
Alexandria ... ..	53,170	52·9	21,829	21·7	9,267	174
Ismailia ... ..	8,329	59·5	3,000	21·4	1,088	131
Port-Saïd ... ..	8,806	45·0	3,789	19·4	1,403	159
Damietta ... ..	2,975	50·2	1,026	17·3	398	134
Suez ... ..	7,622	64·4	3,079	26·0	1,347	177
GOVERNORATES ... ..	193,930	51·6	81,877	23·5	33,907	175
Frontier Districts ... ..	7,475	42·6	2,524	14·4	921	123
Behera ... ..	54,750	40·9	20,362	15·2	4,922	90
Dakahlia ... ..	73,928	48·4	29,766	19·5	8,485	115
Fouadia ... ..	33,880	41·9	10,910	13·5	2,613	77
Gharbia ... ..	84,491	49·5	33,497	19·6	9,263	110
Menoufia ... ..	60,102	48·3	29,216	23·5	8,294	138
Qaliubia ... ..	37,513	50·0	17,031	22·7	5,094	136
Sharkia ... ..	60,419	44·1	24,293	17·7	6,129	101
LOWER EGYPT ... ..	405,083	46·3	165,075	18·9	44,800	111
Aswan ... ..	11,954	38·7	5,844	18·9	1,461	122
Assiut ... ..	56,471	38·6	28,029	19·2	7,079	125
Beni Suef ... ..	26,422	40·3	10,937	16·7	2,903	110
Fayoum ... ..	32,120	45·0	16,690	23·4	5,176	161
Gerga ... ..	45,725	33·5	20,645	15·1	4,599	101
Giza ... ..	44,982	49·1	21,225	23·2	6,865	153
Minia ... ..	46,740	41·6	22,708	20·2	6,225	133
Qena ... ..	34,039	29·0	13,390	11·4	3,347	98
UPPER EGYPT ... ..	298,453	38·7	139,468	18·1	37,655	126
TOTAL ... ..	904,941	44·4	388,944	19·1	117,283	130

TABLE NO. 8.—DEATHS BY AGE AND SEX AND RATES, 1950

Age	Males	Rate per 1,000	Females	Rate per 1,000	TOTAL	Rate per 1,000	Male rates per cent	Female rates per cent	Total Rates per cent
0-1 Year ...	—	—	—	—	—	—	30·0	30·3	{ 30·2
1-4 Years...	115,673	83·9	105,147	75·1	220,820	79·5	—	—	
	—	—	—	—	—	—	25·8	27·5	{ 26·6
5-9 „ ...	5,525	4·2	4,212	3·3	9,737	31·8	2·7	2·3	2·5
10-14 „ ...	4,092	3·3	2,680	2·3	6,772	2·8	2·0	1·5	1·7
15-19 „ ...	3,502	3·3	2,173	2·2	5,673	2·8	1·7	1·2	1·5
20-24 „ ...	3,514	4·8	2,139	2·8	5,653	3·8	1·7	1·2	1·5
25-29 „ ...	3,912	5·3	3,114	3·7	7,026	4·4	1·9	1·7	1·8
30-34 „ ...	4,076	6·1	3,542	4·8	7,618	5·4	3·0	1·9	2·0
35-39 „ ...	4,598	6·5	3,238	4·6	7,836	5·6	2·2	1·8	2·0
40-44 „ ...	5,083	8·3	3,457	5·7	8,540	7·0	2·5	1·9	2·2
45-49 „ ...	4,414	9·6	2,384	5·4	6,798	7·5	2·1	1·3	1·7
50-54 „ ...	6,892	15·2	4,463	9·3	11,355	12·1	3·3	2·5	2·9
55-59 „ ...	3,278	17·8	1,544	8·3	4,822	13·0	1·6	0·8	1·3
60-64 „ ...	7,000	25·8	4,628	14·4	11,628	19·6	3·4	2·5	3·0
65-69 „ ...	4,449	49·3	2,743	31·1	7,192	40·3	2·1	1·5	1·8
70-74 „ ...	7,722	66·5	6,363	43·4	14,085	53·6	2·7	3·5	3·6
75-79 „ ...	3,582	141·6	2,857	110·7	6,439	126·0	1·7	1·6	1·7
80-84 „ ...	6,854	182·8	8,227	145·6	15,081	160·4	3·3	4·5	3·9
85 Years and Over	12,151	653·3	18,293	725·9	30,444	695·1	5·9	10·1	7·8
Not Stated ...	847	31·3	576	16·1	1,423	22·7	0·4	0·3	0·4
<b>TOTAL ...</b>	<b>207,164</b>	<b>20·5</b>	<b>181,780</b>	<b>17·7</b>	<b>388,944</b>	<b>19·1</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>



TABLE NO. 9.— INFANTILE MORTALITY AND RATES BY CAUSES OF DEATH IN LOCALITIES HAVING HEALTH BUREAUS, 1941-1950

Diseases of Infancy	Mortality										Rates per 1000 Live Births									
	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Measles ... ..	228	395	99	262	151	360	200	338	314	76	1.0	1.6	0.4	0.9	0.5	1.1	0.6	0.9	0.8	0.2
Whooping Cough ...	22	28	43	32	28	13	18	11	21	22	0.1	0.1	0.2	0.1	0.1	0.04	0.1	0.03	0.1	0.1
Diphtheria ... ..	70	68	81	59	85	59	57	67	55	39	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1
Tuberculous Diseases	5	13	19	24	11	23	14	18	20	20	0.02	0.1	0.1	0.1	0.03	0.1	0.04	0.1	0.1	0.1
Syphilis ... ..	161	150	234	165	130	135	121	147	131	154	0.7	0.6	0.7	0.7	0.5	0.4	0.3	0.4	0.4	0.4
Rickets and Osteo- malacia ... ..	189	189	183	180	176	128	132	221	165	145	0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.6	0.4	0.4
Convulsions ... ..	173	198	200	252	213	134	98	80	70	—	0.7	0.8	0.7	0.8	0.7	0.4	0.3	0.2	0.2	—
Bronchitis ... ..	3,195	3,636	3,522	3,705	4,211	3,742	3,947	5,574	4,768	4,758	13.8	14.9	13.0	12.4	13.1	11.4	11.2	15.4	12.8	11.7
Broncho-Pneumonia	794	936	1,036	1,095	959	1,145	950	874	1,095	1,185	3.4	3.8	3.8	3.7	3.0	3.5	2.7	2.4	2.9	2.9
Pneumonia ... ..	200	277	301	347	393	497	536	606	621	780	0.9	1.1	1.1	1.2	1.2	1.5	1.5	1.7	1.7	1.9
Diarrhoea and En- teritis ... ..	25,325	31,099	33,230	33,647	37,173	34,086	33,030	32,460	35,083	37,583	109.0	127.6	122.7	112.6	115.2	104.2	93.8	89.6	94.4	92.5
Congenital Defects of Conformation...	73	81	78	137	199	150	91	164	64	122	0.3	0.3	0.3	0.5	0.6	0.5	0.3	0.5	0.2	0.3
Congenital Debility	13,007	14,773	16,895	17,881	20,318	18,786	18,191	21,344	20,902	22,779	56.0	60.6	62.4	59.6	63.0	57.4	51.5	58.9	56.3	56.1
Premature Birth. ...	165	168	195	151	138	167	123	152	168	236	0.7	0.7	0.7	0.5	0.4	0.5	0.3	0.4	0.5	0.6
Consequences of Delivery ... ..	66	47	80	74	113	132	138	115	140	207	0.3	0.2	0.3	0.2	0.4	0.4	0.4	0.3	0.4	0.5
Infanticide ... ..	168	161	126	119	86	100	72	82	60	80	0.7	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Accidents ... ..	152	109	96	122	113	88	109	59	100	83	0.7	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2
Other Causes ... ..	1,546	1,585	1,841	1,983	1,909	1,475	1,553	1,205	1,137	1,177	6.7	6.5	6.8	6.6	5.9	4.5	4.4	3.3	3.1	2.9
TOTAL ... ..	45,539	53,913	58,259	60,235	66,396	61,220	59,380	63,516	64,914	69,446	196.0	221.3	215.1	201.6	205.8	187.1	168.1	175.1	174.7	170.9

TABLE No. 10.—INFANTILE MORTALITY BY AGE AND CAUSE IN LOCALITIES HAVING HEALTH BUREAUS, 1950.

Causes of Death	Days											Months											TOTAL
	0	1	2	3	4	5	6	7	14	21	28	1	2	3	4	5	6	7	8	9	10	11	
Measles	—	—	—	—	—	—	—	—	—	—	—	1	2	3	1	5	6	15	9	10	15	9	76
Whooping Cough	—	—	—	—	—	—	—	—	1	—	—	4	3	1	1	1	2	2	3	2	1	1	22
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	1	3	2	7	5	13	5	39
Tuberculous Diseases	2	—	—	—	—	—	—	—	—	—	—	2	—	2	1	1	4	—	2	4	—	2	20
Syphilis	6	19	8	3	5	5	4	13	13	5	1	15	3	6	5	8	5	9	9	8	3	1	154
Rickets and Osteomalacia	—	—	1	—	—	—	—	2	2	1	—	5	7	10	10	5	22	13	29	19	11	10	145
Convulsions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
Bronchitis	3	7	6	6	6	14	7	54	48	29	1	269	348	496	468	447	559	462	522	397	355	254	4,758
Broncho-Pneumonia	2	1	1	5	2	4	1	12	20	7	2	76	85	95	83	110	145	117	135	122	91	69	1,185
Pneumonia	9	9	9	8	9	4	4	15	20	6	1	62	41	66	64	58	93	81	73	62	52	34	780
Diarrhoea and Enteritis	10	19	20	37	31	32	39	244	279	165	21	1,875	2,698	3,696	4,160	3,971	4,732	3,584	4,221	3,099	2,810	1,840	37,583
Congenital Defects of Conformation	20	11	8	3	4	6	2	8	3	—	—	8	1	6	5	3	2	8	2	14	6	2	122
Congenital Debility	536	1,156	848	922	723	765	689	3,207	2,076	976	147	3,084	2,508	1,838	1,154	615	450	283	282	233	196	91	22,779
Premature Birth	44	53	32	15	10	14	6	30	9	3	0	6	4	2	—	—	1	3	3	1	—	—	236
Consequences of Delivery	62	47	21	13	8	5	4	6	3	2	—	2	—	1	—	—	—	3	3	26	—	1	207
Infanticide	68	5	—	2	—	1	—	—	—	—	—	1	—	1	2	—	—	—	—	—	—	—	80
Accidents	1	—	1	—	1	—	—	—	—	—	—	4	5	7	8	10	11	3	12	9	7	4	83
Other causes	33	28	18	8	10	11	16	63	27	24	2	90	94	76	83	79	142	82	105	82	76	28	1,177
<b>TOTAL</b>	<b>796</b>	<b>1,355</b>	<b>913</b>	<b>1,022</b>	<b>869</b>	<b>861</b>	<b>772</b>	<b>3,652</b>	<b>2,501</b>	<b>1,218</b>	<b>175</b>	<b>5,594</b>	<b>7,990</b>	<b>3,306</b>	<b>6,047</b>	<b>5,314</b>	<b>6,177</b>	<b>4,667</b>	<b>5,417</b>	<b>4,093</b>	<b>3,636</b>	<b>2,351</b>	<b>69,446</b>



**TABLE No. 11.—STILL-BIRTHS AND RATES PER 1,000 TOTAL BIRTHS BY SEX**

Localities	Still-Births			Still-Birth-rates per 1,000		
	Males	Females	TOTAL	Males	Females	TOTAL
<b>Cairo</b> ... ..	1046	755	<b>1,801</b>	17·7	13·6	<b>15·7</b>
<b>Alexandria</b> ... ..	554	438	<b>992</b>	20·0	16·5	<b>18·3</b>
<b>Ismailia</b> ... ..	41	27	<b>68</b>	9·3	6·7	<b>8·1</b>
<b>Port-Said</b> ... ..	151	113	<b>264</b>	32·6	25·5	<b>29·1</b>
<b>Damietta</b> ... ..	55	31	<b>86</b>	35·8	20·3	<b>28·1</b>
<b>Suez</b> ... ..	53	34	<b>87</b>	13·2	9·2	<b>11·3</b>
<b>GOVERNORATES</b> ... ..	<b>1,900</b>	<b>1,398</b>	<b>3,298</b>	<b>18·3</b>	<b>14·6</b>	<b>16·7</b>
<b>Frontier Districts</b> ... ..	1	2	<b>3</b>	0·3	0·5	<b>0·4</b>
<b>Behera</b> ... ..	66	47	<b>113</b>	2·3	1·8	<b>2·0</b>
<b>Dakahlia</b> ... ..	234	170	<b>404</b>	6·1	4·7	<b>5·4</b>
<b>Fouadia</b> ... ..	75	53	<b>128</b>	4·2	3·3	<b>3·8</b>
<b>Menoufia</b> ... ..	183	122	<b>305</b>	5·8	2·2	<b>5·0</b>
<b>Gharbia</b> ... ..	238	115	<b>353</b>	5·5	2·8	<b>4·2</b>
<b>Qaliubia</b> ... ..	87	73	<b>160</b>	4·5	4·0	<b>4·2</b>
<b>Sharkia</b> ... ..	123	78	<b>201</b>	3·8	2·7	<b>3·3</b>
<b>LOWER EGYPT</b> ... ..	<b>1,006</b>	<b>658</b>	<b>1,664</b>	<b>4·8</b>	<b>3·3</b>	<b>4·1</b>
<b>Aswan</b> ... ..	21	20	<b>41</b>	3·3	3·5	<b>3·4</b>
<b>Assiut</b> ... ..	106	69	<b>175</b>	3·5	2·6	<b>3·1</b>
<b>Beni Suef</b> ... ..	91	75	<b>166</b>	6·5	6·0	<b>6·2</b>
<b>Fayoum</b> ... ..	109	71	<b>180</b>	6·4	4·6	<b>5·6</b>
<b>Gerga</b> ... ..	93	57	<b>150</b>	3·6	2·9	<b>3·5</b>
<b>Giza</b> ... ..	172	137	<b>309</b>	7·3	6·3	<b>6·8</b>
<b>Minia</b> ... ..	123	62	<b>185</b>	5·1	2·7	<b>3·9</b>
<b>Qena</b> ... ..	60	25	<b>85</b>	3·1	1·7	<b>2·5</b>
<b>UPPER EGYPT</b> ... ..	<b>775</b>	<b>516</b>	<b>1,291</b>	<b>4·8</b>	<b>3·7</b>	<b>4·3</b>
<b>TOTAL</b> ... ..	<b>3,682</b>	<b>2,574</b>	<b>6,256</b>	<b>7·7</b>	<b>5·9</b>	<b>6·9</b>

## Chapter II.—Infectious Diseases

A total of 50,654 cases of infectious diseases with 11,749 deaths were reported throughout Egypt during 1950, or a case-rate of 248 and a death-rate of 58 per 100,000 of the population as compared with 54,937 cases and 13,730 deaths reported during the previous year or a case-rate of 275 and a death-rate of 69 per 100,000 of the population.

The outstanding features of the incidence of infectious diseases were :-

- (a) The spread of Cerebro Spinal Fever in an epidemic form.
- (b) An apparent drop in the incidence of Measles.
- (c) An increase in the incidence of Influenza (vide tables Nos. 18-21).

The following is a brief study of the more important diseases.

### *Cerebro Spinal Fever :*

Perusal of the incidence of cerebro spinal fever in Egypt since 1912 shows that three epidemic waves have taken place :-

The first wave began in 1913 and lasted until 1916.

The second began in 1931 and ended in 1934.

The third began in 1950.

One can say from this follow up that the disease spreads in an epidemic form after a period of 14 quiescent years and that each epidemic lasts about four years and reaches its peak in the second year.

### *1950 Epidemic :*

The epidemic wave began in December 1949, continued its upward trend until it reached its peak between 12th and the 25th of March 1950, and thence began its decline. (table No. 18). During the year, 2,521 cases with 401 deaths were recorded or a case-rate of 12.4 and a death-rate of 2 per 100,000 of the population. The case mortality rate was 15.9%. 63.8% of the cases were males. The case mortality rate was 13.7 % for males and 11.1 % for females.

The following are the case rates per 100,000 of population for the different age groups :

Age :	...	...	...	0-1	1-5	5-15	15-25	25-45	45-65	over 65
Rate :	...	...	...	0.6	22.1	15.4	18.	5.	2.8	0.3

It will be observed that the highest rate was in the 1-5 years age group and that a marked drop occurred after the 25th year of age.

### *Geographical Distribution :*

Most of the cases were recorded in Cairo, Alexandria, Port-Said and Suez where 72.4% of the total cases reported throughout Egypt were recorded. Since the population of the four cities represent 17.4 % of the whole population of Egypt, it is clear that the incidence of cerebro spinal fever is highest in the larger cities. This may be attributed to the prevalence of cinemas, places of amusement, schools, etc where many people congregate, as may be demonstrated by the following table No. 12 which gives the incidence during 1950 for every province as a whole and the chief town of each province :



TABLE NO. 12

Province	No. of Cases	Rate per 100,000 of Pop.	Chief Town of Province	No. of Cases	Rate per 100,000 of Pop.
Behera... ..	62	4.6	Damanhour ... ..	7	7.5
Dakahlia ... ..	50	3.3	Mansoura ... ..	10	9.0
Gharbia ... ..	148	8.7	Tanta ... ..	34	24.2
Fouadia ... ..	5	0.6	Kafer el Sheikh ...	2	11.3
Menoufia ... ..	22	1.8	Shebin el Kom ...	7	15.7
Qaliubia ... ..	45	6.0	Benha ... ..	5	12.7
Sharkia ... ..	76	5.5	Zagazig ... ..	33	36.7
Aswan ... ..	10	3.2	Aswan ... ..	2	7.4
Assiut ... ..	70	4.8	Assiut ... ..	9	9.5
Beni Suef ... ..	7	1.1	Beni Suef ... ..	3	4.9
Fayoum ... ..	4	0.6	Fayoum ... ..	2 Deaths	—
Gerga ... ..	42	3.1	Souhag ... ..	6	12.9
Giza ... ..	99	10.8	Giza... ..	51	63.6
Minia ... ..	16	1.4	Minia ... ..	2	2.8
Qena ... ..	6	0.5	Qena ... ..	4	8.7

Perhaps the accurate notification of infectious diseases in urban towns contributed towards the high rates therein.

The average case rate in Lower Egypt provinces was 4.7 per 100,000 of population as compared with a rate of 3.3 per 100,000 of population in Upper Egypt provinces despite the high rate recorded in Giza province which may be considered as a suburb of Cairo City.

*Measures taken in connection with the 1950 Epidemic.*

*A. Special Measures :*

1. *Patients :* Patients were isolated in fever hospitals following notification or detection. Examining medical officers used to give patients the necessary injections or sulpha tablets on mere suspicion and before isolation. The hospital was notified of the amount and type of the dose given to the patient.

2. *Contacts.*—Adult direct contacts were given a daily dose of 2.5 grms. of any sulpha compound for three days. Where contacts suffered from sore throat, the dose was increased to 3 grms. given on three or four intervals. The dose was reduced according to age. In factories, prisons, schools, etc. contacts of the same room were dealt with as direct contacts. Other contacts in the establishment were given one dose only.

Treating medical officers and nursing staff were given a weekly dose of 2.5 grms. Persons accompanying patients in isolation were considered as contacts and given the prophylactic sulpha doses.

Visits to cerebro spinal fever patients were forbidden during the first week only.

3. *Disinfection.*—Usual disinfection was applied coupled with ventilation, cleanliness and exposure of beddings to air and sun.

4. *Observation.*—Contacts were kept under observation for seven days.

## *B. General Measures :*

Prohibition of crowdedness and effecting ventilation and cleanliness in :

1.—All means of transport.

2.—Places of entertainment and cinemas, with half hour intervals for complete ventilation and operation of air conditioning apparatus if present.

3.—Government and private congregations, e.g. prisons, auxiliary police force, infirmaries, schools and army forces. Sleeping in dormitories or wards was arranged in such a way as to increase the distance between the heads of sleepers by arranging beds so as to be alternately head and foot to the wall.

## *Measures taken following the decline of the epidemic wave :*

Sulpha was administered to the following categories as a prophylaxis before the 1951 epidemic season :

1—Recovered cases of the preceding season and their contacts throughout Egypt. A large scale survey of contacts was carried out.

2—Inhabitants of squares, streets and lanes of towns and villages where numerous cases occurred in 1950. This measure was applied throughout the country.

3—Controllable congregations, namely factories with over 50 workmen, general and district prisons, infirmaries, auxiliary police force, army units and school pupils in Lower Egypt. In Upper Egypt, sulpha was administered to congregations in such towns where cases occurred.

The dose for adults was five tablets given at a time.

For children, the dose was given according to age.

In hospitals sulpha was given to patients suffering from sore throat or catarrh.

The above was done on three occasions : the first in October, the second in November and the third in December of 1950.

A total of 15 million tablets costing 80 thousand Egyptian pounds were distributed on the three occasions. More than a million persons received the drug on each occasion exclusive of armed forces.

## *Typhus :*

105 cases of typhus with 16 deaths were recorded during the year or a case-rate of 0.5 and a death-rate of 0.08 per 100,000 of population and a case mortality rate of 15% as compared with 180 cases with 53 deaths in 1949 or a case-rate of 0.9 and a death-rate of 0.3 per 100,000 of population and a case mortality rate of 29%.

The highest case rate of 6.3 per 100,000 of population was recorded in the Frontiers Districts. More cases than in 1949 were recorded in Cairo, Damietta, the Frontiers Districts and Sharkia.

In the other localities there were fewer cases (Tables Nos. 18—21).

## *Measles :*

Some 3,068 cases with 598 deaths were recorded throughout Egypt during the year or a case-rate of 15 and a death-rate of 2.9 per 100,000 of population and a case mortality rate of 19.5% as against 11,311 cases with 2,603 deaths or rates of 56.7 and 13 per 100,000 of population and 23% respectively in the previous year.

Persual of table No. 19 which gives the case-rates in the ten years 1941—1950 shows high rates during 1941 and 1942 followed by a low incidence lasting six years and again a high rate in 1949 which was not maintained during the succeeding year. This fluctuation may be attributed to the well known fact that notification of measles is far from accurate.



Nevertheless, one can see from the following table which gives the figures for Cairo and Alexandria, where notification is more accurate than elsewhere, that the disease has a biennial outburst which may sometimes last for two years as in the case of Cairo and Alexandria during 1948 and 1949.

TABLE No. 13.—NUMBER OF CASES

Year	Cairo	Alexandria	Year	Cairo	Alexandria
1940	1,369	669	1945	506	765
1941	762	1,272	1946	1,635	138
1942	1,721	134	1947	996	2,389
1943	271	576	1948	1,988	694
1944	1,336	325	1949	1,815	3,631
			1950	586	1,180

It will be observed from the following table No. 14 which gives the four weekly distribution of cases in Cairo and Alexandria during 1950 that the disease had two peaks one during June and July and the other during December :

TABLE No. 14.—FOUR WEEKLY DISTRIBUTION OF CASES

Weeks	Cairo	Alexandria	Weeks	Cairo	Alexandria
1- 4	6	1	25-28	106	167
5- 8	4	5	29-32	70	108
9-12	12	12	33-36	58	110
13-16	29	33	37-40	33	80
17-20	50	81	41-44	14	51
21-24	82	154	45-48	37	75
			49-52	85	303

It is believed that complications of measles are responsible for a large proportion of infantile deaths, and that early detection and treatment of cases would substantially reduce infantile mortality.

#### Plague :

No cases of Plague were reported since 1948.

#### Small Pox :

Nine cases of small pox were reported during the year. Of these, six were imported: 5 Indians arriving at Suez and a Chinese arriving at Quseir on board vessels. Of the remaining three cases, one, a dancer, occurred in Mousky district in Cairo, another, a workman, in Manfalout and a third, a farmer, at Fareskour. The arrival of the 6 imported cases did not cause alarm of a possible spread of the disease in view of the four yearly general vaccination of the whole population which had been introduced in 1945,

*Diphtheria :*

1,389 cases with 597 deaths were recorded during the year or a case-rate of 6.8 and a death-rate of 2.9 per 100,000 of population and a case mortality rate of 43% as compared with 1,683 cases with 603 deaths or rates of 8.4, 3.4 and 35.8% respectively during 1949.

The following table No. 15 gives the case and death rates in Cairo, Alexandria, the chief towns in governorates and other localities.

TABLE No. 15

Year	Cairo		Alexandria		Chief towns of Govtes and Prov.		Other rural localities	
	Case rate	Death rate	Case rate	Death rate	Case rate	Death rate	Case rate	Death rate
<b>1941—45</b>	125.6	37.6	36.3	20.8	40.9	23.3	7.1	4.5
<b>1946</b>	64.7	13.2	39.0	10.0	18.6	11.6	3.7	2.8
<b>1947</b>	47.3	8.2	33.0	7.6	12.7	7.4	2.4	3.7
<b>1948</b>	44.7	8.8	23.5	5.3	16.7	7.9	2.9	2.1
<b>1949</b>	37.3	7.0	19.6	5.4	22.9	7.4	3.5	1.9
<b>1950</b>	24.1	5.0	25.6	7.2	13.3	6.2	2.6	2.0

This table shows that the incidence of the disease is greater in urban towns than in rural areas and that the larger the town, the higher is the case rate. It also shows that, except in Alexandria, the incidence of the disease is on the decline. This may be attributed to the increasing number of immunised persons year after year

Survey of the monthly incidence of the disease shows that the highest incidence occurred during October and November and the lowest in May. Most of the deaths from diphtheria occur during the second year of life.

It is very rare after the fifth year.

*Typhoid and Paratyphoid :*

During the year, 7,886 cases with 836 deaths were recorded or a case rate of 38.7 and a death-rate of 4.1 per 100,000 of population and a case mortality-rate of 10.6% as compared with 7,110 cases with 814 deaths during the previous year or rates of 35.6, 4.1 and 11.4 % respectively.

The following mean case rates per million of population for urban and rural areas show that in urban areas the rates are many times more than in rural areas. This may be explained by the different modes of living in each.

In rural areas, the meals are all prepared at home. In urban areas, a large number of the population get their meals in public establishments or from itinerant venders who abound in towns.

TABLE No. 16— MEAN CASE—RATES PER MILLION OF POPULATION

Years	Urban	Rural	Years	Urban	Rural
<b>1931—1935</b>	803	70	<b>1936—1940</b>	870	94
<b>1941—1945</b>	1027	53	<b>1946—1950</b>	817	57
<b>1931—1950</b>	880	67			



It is recognised that the notification of typhoid cases is far from being accurate. There are several indications that the disease is wide spread in Egypt. It is believed that a large proportion of infantile enteritis is attributed to typhoid.

The four weekly incidence of typhoid in Cairo, Alexandria and Port-Said (table No. 17) reveals that the incidence starts on the rise about the end of April, reaches its peak about the end of July and August and declines thereafter.

TABLE NO. 17.—FOUR WEEKLY INCIDENCE OF TYPHOID  
IN CAIRO, ALEXANDRIA AND PORT SAID

Weeks	Cairo	Alexandria	Port-Said
1- 4... ..	157	42	31
5- 8... ..	125	31	18
9-12... ..	162.	23	23
13-16... ..	162	22	36
17-20... ..	265	29	65
21-24... ..	430	73	66
25-28... ..	491	84	107
29-32... ..	623	121	170
33-36... ..	542	97	197
37-40... ..	382	54	143
41-44... ..	244	62	80
45-48... ..	197	60	56
49-52... ..	122	36	70





Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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TABLE No. 19.—INFECTIOUS DISEASES CASE AND DEATH RATES PER 100,000 POPULATION, 1941—1950

Diseases	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Plague ... .. { C D	0·08 0·04	0·08 0·06	0·09 0·64	3·7 2·2	1·2 0·6	1·2 0·3	0·08 0·03	— —	— —	— —
Typhus ... .. { C D	55·3 10·3	128·0 25·6	230·6 47·4	104·8 22·9	102·0 20·2	8·5 1·9	0·9 0·3	1·3 0·4	0·9 0·3	0·5 0·08
Small-Pox ... .. { C D	— —	— —	23·8 2·2	63·5 5·8	7·6 0·6	2·2 0·3	0·9 0·1	0·1 0·02	2·02 0·005	0·04 —
Typhoid fever ... .. { C D	33·8 6·9	39·6 7·3	25·4 4·5	28·5 4·5	29·5 4·6	25·2 3·5	24·0 3·6	28·3 4·1	35·6 4·1	38·7 4·1
Scarlet fever ... .. { C D	0·5 —	0·3 0·01	0·3 0·02	0·2 —	0·1 0·006	0·1 —	0·1 0·01	0·04 —	0·1 0·005	0·1 —
Cerebro Spinal Fever ... { C D	0·9 0·6	1·2 0·6	0·7 0·3	0·8 0·4	0·4 0·3	0·5 0·2	0·5 0·2	0·7 0·2	1·0 0·3	12·4 2·0
Diphtheria ... .. { C D	23·5 11·3	22·9 10·9	23·8 9·2	18·9 7·2	17·5 6·5	11·2 4·5	9·5 3·1	9·4 3·1	8·4 3·4	6·8 2·9
Measles ... .. { C D	57·4 16·9	56·7 21·2	24·4 5·9	41·3 14·0	30·4 7·9	38·4 9·5	36·0 7·0	33·2 12·3	56·7 13·0	15·0 2·9
Pulmonary Tuberculosis... { C D	36·9 17·8	18·4 20·2	38·9 20·9	39·4 21·6	38·1 20·5	35·3 20·2	34·0 18·7	33·8 19·0	36·2 19·1	34·4 20·2
Acute Pneumonia ... .. { C D	31·8 28·4	36·0 30·7	39·8 33·1	39·3 29·7	12·4 27·0	29·9 24·4	30·2 20·6	25·9 18·2	37·4 24·6	31·3 21·5
Chicken Pox ... .. { C D	10·9 0·1	5·1 0·05	7·1 0·1	6·0 0·1	7·5 0·1	4·8 0·1	9·2 0·04	8·8 0·005	8·1 0·005	10·0 0·02
Periperal Septicaemia ... { C D	2·7 2·0	1·9 1·2	2·2 1·1	2·0 0·9	2·2 1·0	1·5 0·8	1·6 0·7	1·5 0·5	1·5 0·4	1·6 0·8



Dysentery ...	...	...	{ C D }	20.2 3.0	20.6 3.3	10.7 3.5	9.5 3.0	6.8 2.1	6.2 1.8	7.1 1.3	6.4 1.2	5.7 1.0	5.8 1.0
Influenza ...	...	...	{ C D }	65.3 1.1	75.3 1.3	80.7 1.3	63.6 1.2	81.7 0.8	96.8 0.4	29.8 0.2	26.3 0.2	31.7 0.4	38.2 0.3
Malaria New ...	...	...	{ C D }	54.7 0.6	121.5 2.3	94.9 7.7	214.7 10.6	32.9 0.3	51.1 0.1	35.2 0.2	22.7 0.1	14.1 0.1	20.8 0.1
Malaria Recurrent ...	...	...	{ C D }	— —	— —	— —	1238.2 0.08	789.8 0.1	31.3 0.02	17.6 0.005	7.6 —	7.0 —	8.1 —
Anthrax ...	...	...	{ C D }	0.1 0.03	0.1 0.02	0.08 0.05	0.07 0.01	0.02 0.01	0.03 0.006	0.05 0.005	0.01 —	0.005 0.005	0.01 0.005
Whooping cough ...	...	...	{ C D }	17.2 1.0	13.1 0.8	11.8 0.6	6.9 0.6	10.4 0.5	5.0 0.3	11.4 0.3	3.9 0.1	6.9 0.4	4.8 0.3
Parotitis ...	...	...	{ C D }	10.3 0.1	8.4 0.2	8.3 0.2	6.0 0.1	9.7 0.1	7.1 0.07	9.8 0.05	7.1 0.04	13.2 0.04	8.5 —
Undulant fever ...	...	...	{ C D }	0.1 —	0.05 0.01	0.03 0.02	0.1 0.02	0.08 0.01	0.1 0.01	0.06 0.005	0.1 0.03	0.4 0.02	0.4 —
Leprosy ...	...	...	{ C D }	3.0 0.5	3.0 0.5	2.3 0.4	1.3 0.3	1.9 0.3	0.7 0.3	0.8 0.3	0.8 0.3	1.0 0.3	1.1 0.2
Tetanus ...	...	...	{ C D }	2.5 1.8	2.7 1.8	2.5 1.7	3.1 1.9	2.5 1.7	2.4 2.5	2.3 1.6	2.1 1.6	2.1 1.4	2.3 1.7
Acute poliomyelitis ...	...	...	{ C D }	0.09 0.05	0.03 0.006	0.04 0.01	0.06 0.03	0.04 0.03	0.01 0.03	0.06 0.07	0.03 0.14	0.07 0.05	0.04 0.005
Erysipelas ...	...	...	{ C D }	26.4 2.7	18.5 1.8	11.2 1.2	9.5 0.9	8.7 0.8	6.5 0.5	7.6 0.5	7.2 4.0	7.3 0.3	7.4 0.3
Relapsing fever ...	...	...	{ C D }	— —	— —	— —	0.06 —	95.6 4.9	6.1 1.3	1.2 0.2	0.03 —	— —	— —

TABLE No. 20.—CASES OF INFECTIOUS DISEASES, 1949—1950

Localities	Typhus		Small-Pox		Typhoid. F.		Scarlet F.		Cerebro-spinal F.		Diphtheria		Measles		Pulmonary Tuber.		Acute Pneum.		Chicken Pox.		Puerperal Septicaemia		Dysentery	
	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo	14	32	2	1	4,091	3,902	8	10	133	1,307	809	538	1,815	586	3,599	3,564	2,453	2,163	661	731	118	145	160	179
Alexandria	11	6	—	—	743	734	5	3	9	403	191	257	3,631	1,180	1,087	1,180	2,587	2,979	269	571	84	102	259	261
Ismailia	—	—	—	—	33	42	—	—	—	19	8	13	1	1	1	3	38	30	4	2	—	—	3	2
Port-Said	—	—	—	—	971	1,062	4	9	31	74	83	42	71	85	212	161	284	288	109	196	4	2	17	32
Damietta	—	3	—	—	23	44	—	—	—	7	11	3	22	—	20	23	15	17	2	5	1	—	—	—
Suez	2	—	—	5	132	146	—	—	1	42	62	20	64	8	138	63	177	125	54	58	2	6	58	67
Frontier Districts	—	11	—	1	36	16	—	—	—	7	6	3	153	99	15	18	6	19	57	37	2	2	80	52
Behera	13	4	—	—	173	227	—	—	—	62	16	37	517	60	89	107	89	54	60	69	6	1	11	7
Dakahlia	75	27	—	1	103	197	—	—	2	50	49	33	534	28	301	297	67	46	48	19	8	9	9	21
Fouadia	—	—	—	—	—	19	—	—	—	5	—	11	—	9	—	66	—	17	—	15	—	—	—	29
Gharbia	7	6	—	—	206	248	—	—	10	148	130	108	511	62	410	289	128	114	65	86	6	3	76	25
Menoufia	16	2	—	—	77	81	1	—	1	22	46	33	490	171	141	128	18	25	36	19	10	10	13	12
Qalubia	—	5	—	—	127	173	—	—	—	45	43	59	168	11	133	165	81	81	39	34	5	3	8	15
Sharkia	3	5	—	—	93	98	—	—	7	76	44	54	531	17	131	170	31	22	59	58	1	1	34	63
Aswan	—	—	—	—	6	12	—	—	—	10	17	3	6	—	91	109	8	8	7	3	6	1	14	7
Assiut	—	2	—	1	77	168	—	1	3	70	42	51	639	32	163	143	126	98	15	12	10	10	53	48
Beni-suef	—	—	—	—	15	34	—	—	—	7	4	14	164	29	139	91	5	8	9	13	6	2	11	6
Fayoum	—	—	—	—	71	95	—	—	—	4	13	22	134	62	160	130	45	33	5	19	2	3	45	80
Gerga	1	—	—	—	61	120	—	—	—	42	9	12	396	87	80	113	46	59	6	12	1	3	5	19
Giza	36	2	1	—	284	358	—	1	6	99	55	42	803	32	129	104	162	122	66	71	7	7	15	5
Minia	—	—	—	—	56	66	—	—	1	16	29	26	496	379	49	53	34	34	31	11	8	3	106	210
Qena	2	—	—	—	32	44	—	—	1	6	16	8	165	130	131	134	58	44	9	2	4	7	153	50
TOTAL	180	105	3	9	7,110	7,886	18	24	205	2,521	1,683	1,39	1131	3,068	7,219	7,012	7,458	6,386	1,611	2,043	291	320	1,130	1,190



TABLE No. 20.—CASES OF INFECTIOUS DISEASES 1949—1950 (Contd.)

Localities	Influenza		Malaria New		Malaria Rec.		Anthrax		Whooping Cough		Parotitis		Undulant fever		Leprosy		Tetanus		Acute polio,		Erysipelas	
	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo ...	2,139	2,782	607	509	34	8	—	—	328	136	1,079	534	31	58	10	4	63	61	1	1	305	301
Alexandria ...	1,457	2,157	204	91	—	—	—	—	149	267	392	583	2	1	19	2	54	47	9	3	516	622
Ismailia ...	21	55	52	56	—	—	—	—	—	3	3	3	—	—	—	—	9	2	—	—	2	3
Port-said ...	484	677	104	77	—	—	—	—	9	5	46	50	1	—	1	1	18	12	2	—	75	89
Damietta ...	40	41	4	14	—	—	—	—	1	—	1	5	—	—	2	—	1	3	—	—	8	11
Suez ...	136	66	23	12	8	6	—	—	3	12	24	6	1	—	2	2	4	2	—	—	14	14
Frontier Districts...	55	20	18	153	2	—	—	—	10	—	244	65	—	—	1	1	—	—	—	—	7	7
Behera ...	168	133	30	188	—	7	—	—	10	21	24	59	—	2	17	—	37	53	—	—	43	46
Dakahlia ...	187	172	107	271	6	7	—	—	126	3	7	48	1	3	16	17	24	21	—	—	77	78
Fouadia ...	—	62	—	182	—	1,291	—	—	—	—	—	1	—	1	—	2	—	17	—	—	—	25
Gharbia ...	378	281	575	129	599	—	1	2	42	35	126	62	4	4	8	3	55	44	1	2	131	74
Menoufia ...	139	114	87	26	36	84	—	1	31	29	151	138	3	1	32	21	24	52	—	—	73	32
Qaliubia ...	231	233	230	418	16	33	—	—	9	6	200	9	3	1	5	3	11	18	—	—	37	35
Sharkia ...	57	86	110	925	16	40	—	—	35	20	34	38	—	—	14	7	14	22	—	2	37	46
Aswan ...	55	39	4	—	15	—	—	—	—	7	33	3	—	—	1	2	—	1	—	—	10	2
Assiut ...	137	239	32	72	—	1	—	—	20	27	64	20	—	—	9	14	25	38	—	—	19	16
Beni-Suef ...	60	57	50	239	6	1	—	—	22	—	1	1	—	—	1	103	5	9	—	—	7	14
Fayoum ...	23	28	82	60	611	154	—	—	400	94	21	41	1	1	3	6	4	8	—	—	24	16
Gerga ...	71	67	7	12	—	—	—	—	32	5	4	4	—	—	16	9	12	13	—	—	8	10
Giza ...	244	233	249	254	—	1	—	—	99	247	133	20	31	8	7	8	16	14	—	—	18	18
Minia ...	138	146	29	515	8	5	—	—	55	27	7	12	—	2	18	16	29	22	—	—	37	38
Qena ...	110	113	13	48	25	16	—	—	4	45	31	4	—	—	16	12	13	13	—	—	10	6
<b>TOTAL ...</b>	<b>6,330</b>	<b>7,781</b>	<b>2,817</b>	<b>4,251</b>	<b>1,392</b>	<b>1,654</b>	<b>1</b>	<b>3</b>	<b>1,385</b>	<b>989</b>	<b>2,628</b>	<b>1,726</b>	<b>78</b>	<b>82</b>	<b>198</b>	<b>233</b>	<b>418</b>	<b>472</b>	<b>13</b>	<b>8</b>	<b>1,458</b>	<b>1,503</b>

TABLE No. 21.—INFECTIOUS DISEASES CASE-RATES PER 100,000 POPULATION, 1949—1950

Localities	Typhus		Small-Pox		Typhoid Fev.		Cerebro Spinal Fev.		Scarlet Fev.		Diphtheria		Measles		Pulmonary T. B.		Acute Pneumonia		Chicken Pox		Puerperal Sep.		Dysentery	
	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo	0.6	1.4	0.1	0.04	187.9	174.5	6.1	58.4	0.4	0.4	37.1	24.1	83.3	26.2	165.2	159.4	112.6	96.7	30.3	32.7	5.4	6.5	7.3	8.0
Alexandria	1.1	0.6	—	—	75.9	73.0	0.9	40.0	0.5	0.3	19.5	25.6	37.1	117.3	111.1	117.3	366.5	296.2	27.5	56.8	8.6	10.1	26.5	26.0
Ismailia	—	—	—	—	28.7	30.0	—	13.6	—	—	7.0	9.3	0.9	0.7	0.09	2.1	33.1	21.4	3.5	1.4	—	—	2.6	1.4
Port-Saïd	—	—	—	—	355.0	542.9	16.4	37.8	2.1	4.6	44.4	21.5	37.6	43.5	112.2	82.3	150.3	147.2	57.7	100.0	2.1	1.0	9.0	16.4
Damietta	—	5.1	—	—	40.1	74.2	—	11.8	—	—	19.2	5.1	38.4	—	35.1	38.8	26.1	28.7	3.5	8.4	1.8	—	—	—
Suez...	1.7	—	—	4.2	114.7	123.4	0.8	35.5	—	—	53.9	16.9	55.6	6.8	119.9	53.3	153.8	105.7	46.9	49.0	1.7	5.1	50.4	56.6
Frontier Districts	—	6.3	—	0.6	20.3	9.1	—	4.0	—	—	3.4	1.7	86.3	56.4	8.5	10.2	3.4	10.8	32.3	21.1	1.1	1.1	45.2	29.6
Behera	1.0	0.3	—	—	13.2	17.0	—	4.6	—	—	1.2	2.8	39.5	4.5	6.8	8.0	6.8	4.0	4.6	5.2	0.5	0.07	0.8	0.5
Dakahlia	5.0	1.8	—	0.07	6.9	12.9	0.1	3.3	—	—	3.3	2.2	35.9	1.8	20.2	19.4	4.5	3.0	3.2	1.2	0.5	0.6	0.6	1.4
Fouadia	—	—	—	—	—	2.3	—	0.6	—	—	—	1.4	—	1.1	—	8.2	—	2.1	—	—	—	—	—	3.6
Gharbia	0.3	0.4	—	—	8.4	14.5	0.4	8.7	—	—	5.3	6.3	20.8	3.6	16.7	16.9	5.2	6.7	2.6	5.0	0.2	0.2	3.1	1.5
Menoufia	1.3	0.2	—	—	6.3	6.5	0.08	1.8	0.08	—	3.8	2.7	40.2	13.7	11.6	10.3	1.5	2.0	3.0	1.5	0.8	0.8	1.1	1.0
Qaliubia	—	0.7	—	—	17.5	23.1	—	6.0	—	—	5.9	7.9	23.1	1.5	18.4	22.0	11.1	10.8	5.4	4.5	0.7	0.4	1.1	2.0
Sharkia	0.2	0.4	—	—	6.9	7.1	0.5	5.5	—	—	3.2	3.9	38.7	1.2	9.6	12.4	2.3	1.6	4.3	4.2	0.07	0.07	2.5	4.6
Aswan	—	—	—	—	2.0	3.9	—	3.2	—	—	5.6	1.0	2.0	—	29.8	35.3	2.6	2.6	2.3	1.0	2.0	0.3	4.6	2.3
Assiut	—	0.1	—	0.07	5.4	11.5	0.2	4.8	—	0.07	2.9	3.5	44.6	2.2	11.4	9.8	8.8	6.7	1.0	0.8	0.7	0.7	3.7	3.7
Beni-Suef	—	—	—	—	2.3	5.2	—	1.1	—	—	0.6	2.2	25.6	4.4	21.7	13.9	0.8	1.2	1.4	2.0	0.9	0.3	1.7	0.9
Fayoum	—	—	—	—	10.1	13.3	—	0.6	—	—	1.9	3.1	19.2	8.7	22.9	18.2	6.4	4.6	0.7	2.7	0.3	0.4	6.4	8.4
Gerga	0.07	—	—	—	4.5	8.8	—	3.1	—	—	0.7	0.9	29.4	6.4	5.9	8.3	3.4	4.3	0.5	0.9	0.1	0.2	0.4	1.4
Giza	4.0	0.2	0.1	—	31.7	39.1	0.7	10.8	—	0.1	6.1	4.6	89.6	3.5	14.4	11.4	18.1	13.3	7.4	7.8	0.8	0.8	1.7	0.5
Minia	—	—	—	—	5.1	5.9	0.09	1.4	—	—	2.6	2.3	45.2	33.7	4.5	4.7	3.1	3.0	2.8	1.0	0.7	0.3	9.6	18.7
Qena	0.2	—	—	—	2.8	3.8	0.08	0.5	—	—	1.4	0.7	14.3	11.1	11.4	11.4	5.0	3.8	0.8	0.2	0.03	0.6	13.3	4.4
TOTAL	0.9	0.5	0.02	0.04	35.6	38.7	1.0	12.4	0.9	0.1	8.4	6.8	56.7	15.0	36.2	34.4	37.4	31.3	8.1	10.0	1.5	1.6	5.7	5.8



TABLE No. 21.—INFECTIOUS DISEASES CASE RATES PER 100,000 POPULATION, 1940—1950. (contd.)

Localities		Influenza		Malaria New		Malaria Recurrent		Anthrax		Whooping cough		Parotitis (Mumps)		Undulant F.		Leprosy		Tetanus		Acute poliomyelitis		Erysipelas	
		49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo	...	98.2	124.4	27.9	22.8	1.6	0.4	—	—	15.1	6.1	49.5	23.9	1.4	2.6	0.5	0.2	2.9	2.7	0.05	0.04	14.0	13.5
Alexandria	...	148.9	214.5	30.8	9.0	—	—	—	—	15.2	26.6	40.4	58.0	0.2	0.1	1.9	0.2	5.5	4.7	0.9	0.3	52.7	61.8
Ismailia	...	18.3	25.0	45.3	40.0	—	—	—	—	—	2.1	2.6	2.1	—	—	—	—	7.8	1.4	—	—	1.7	2.1
Port-Said	...	256.1	346.1	55.0	39.4	—	—	—	—	4.8	2.6	24.3	25.6	0.5	—	0.5	0.5	9.6	6.1	1.0	—	39.7	45.5
Damietta	...	70.0	69.1	0.7	23.6	—	—	—	—	1.7	—	1.7	8.4	—	—	2.4	—	1.7	5.1	—	—	13.9	18.5
Suez	...	118.2	55.7	20.0	10.1	7.0	5.1	—	—	2.6	10.1	20.9	5.1	0.8	—	1.7	1.7	3.4	1.7	—	—	12.3	11.8
Frontier Districts	...	31.0	11.4	10.2	87.1	1.1	—	—	—	5.6	—	137.7	37.0	—	—	0.6	0.6	—	—	—	—	4.0	4.0
Behera	...	22.8	9.9	2.3	14.0	—	0.5	—	—	0.8	1.6	1.8	4.4	—	0.1	1.3	—	2.8	4.0	—	—	3.3	3.4
Dakahlia	...	12.6	11.3	7.2	17.7	0.4	0.5	—	—	8.5	0.2	0.5	3.1	0.07	0.2	1.0	1.1	1.6	1.4	—	—	5.2	5.1
Fouadia	...	—	7.7	—	22.5	—	159.5	—	—	—	—	—	0.1	—	0.1	—	0.2	—	2.1	—	—	—	3.1
Gharbia	...	15.4	16.5	23.4	7.6	24.4	—	0.04	0.1	1.7	2.1	5.1	3.6	0.2	0.2	0.4	0.2	2.2	2.6	0.04	0.1	5.3	4.3
Menoufia	...	11.4	9.2	7.1	2.1	3.0	6.8	—	0.08	2.5	2.3	12.4	11.1	0.2	0.08	2.5	1.7	2.0	4.2	—	—	6.0	2.6
Qaliubia	...	31.8	31.1	31.8	55.8	2.2	4.4	—	—	1.0	0.8	27.5	1.2	0.4	0.1	0.7	0.4	1.5	2.4	—	—	7.1	4.7
Sharkia	...	4.2	6.4	8.0	67.4	1.2	2.9	—	—	2.5	1.9	2.5	2.8	—	—	1.0	0.5	1.0	1.6	—	0.1	2.7	3.4
Aswan	...	18.0	12.6	1.3	—	4.6	—	—	—	—	2.3	10.8	1.0	—	—	0.3	0.6	—	0.3	—	—	3.3	0.6
Assiut	...	9.6	16.4	2.2	4.9	—	0.07	—	—	1.4	1.8	4.5	1.4	—	—	0.6	1.0	1.7	2.6	—	—	1.3	1.1
Beni-Suef	...	9.3	8.7	7.8	36.5	0.9	0.2	—	—	3.4	—	0.2	0.2	—	—	0.2	15.7	0.8	1.4	—	—	1.1	2.2
Fayoum	...	3.3	3.9	11.7	8.4	87.3	21.6	—	—	57.2	13.2	3.0	5.7	0.1	0.1	0.4	0.8	0.6	1.1	—	—	3.4	2.2
Gerga	...	5.3	4.9	0.5	0.9	—	—	—	—	2.4	0.4	0.3	0.3	—	—	1.2	0.7	0.9	1.0	—	—	0.6	0.7
Giza	...	27.8	25.5	27.8	27.7	—	0.1	—	—	11.0	27.0	14.8	4.4	3.5	0.9	0.8	0.9	1.8	1.5	—	—	2.0	2.0
Minia	...	12.6	13.0	2.6	45.8	0.7	0.4	—	—	5.0	2.4	0.6	1.1	—	0.2	9.8	1.4	2.6	1.9	—	—	3.4	3.4
Qena	...	9.6	9.6	1.1	4.1	2.2	1.4	—	—	0.03	3.8	2.7	0.3	—	—	1.0	1.0	1.1	1.1	—	—	0.9	0.5
TOTAL		31.7	38.2	14.1	20.8	7.0	8.1	0.005	0.01	6.9	4.8	13.2	8.5	0.4	0.4	1.0	1.1	2.1	2.3	0.07	0.04	7.3	7.4

TABLE No. 22.—DEATHS FROM INFECTIOUS DISEASES, 1949—1950

Localities	Typhus		Small-Pox		Typhoid		Scarlet Fev.		Cerebro Spinal F.		Diphtheria		Measles		Pulmonary T.B.		Acute Pneu. monia		Chicken pox		Puerperal Sept.		Dysentery	
	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo ...	2	4	—	—	358	319	—	—	30	153	151	120	771	260	1,455	1,548	1,736	1,429	1	2	19	20	66	87
Alexandria ...	5	—	—	—	96	71	—	—	4	68	53	72	513	60	614	597	1,696	1,409	3	—	8	10	48	47
Ismailia ...	—	—	—	—	6	7	—	—	—	2	3	2	14	4	44	55	205	233	—	—	—	—	4	6
Port-Saïd ...	—	—	—	—	23	27	—	—	3	6	19	5	16	9	131	148	45	49	—	—	—	1	4	3
Damietta ...	—	—	—	—	3	2	—	—	—	3	3	3	1	—	22	27	4	2	—	—	—	—	1	1
Suez ...	—	—	—	—	22	8	—	—	—	2	19	8	3	—	31	47	31	18	—	—	—	1	—	1
Frontier Districts	—	1	—	—	3	3	—	—	—	2	2	3	33	10	10	21	4	6	—	—	1	1	—	2
Behera ...	9	1	—	—	36	21	—	—	—	16	14	17	86	19	165	133	44	41	—	1	4	—	10	7
Dakahlia ...	20	3	—	—	16	31	—	—	—	6	19	15	185	6	152	238	43	27	—	—	5	2	6	1
Fouadia ...	—	—	—	—	—	3	—	—	—	—	—	7	—	—	—	36	—	17	—	—	—	—	2	2
Gharbia ...	1	2	—	—	45	39	—	—	4	28	80	81	76	1	203	189	247	250	—	—	4	3	19	8
Menoufia ...	5	—	—	—	20	13	—	—	—	7	38	36	56	23	97	98	53	50	1	—	3	1	4	3
Qaliubia ...	—	2	—	—	21	30	—	—	—	10	27	46	14	—	96	105	62	49	—	—	1	—	3	2
Sharkia ...	3	1	—	—	23	17	—	—	3	23	22	19	77	5	97	143	104	62	—	—	2	5	10	3
Aswan ...	—	—	—	—	2	2	—	—	—	3	16	2	5	2	42	70	58	245	—	—	1	1	4	—
Assiut ...	—	2	—	—	16	20	—	—	—	12	24	23	227	19	128	110	76	87	—	—	9	2	10	19
Beni Suef ...	—	—	—	—	3	2	—	—	1	2	8	7	39	1	68	64	171	71	—	1	2	—	1	—
Fayoum ...	—	—	—	—	8	18	—	—	1	2	10	19	29	14	100	109	14	18	—	—	3	1	1	—
Gerga ...	—	—	—	—	20	22	—	—	—	12	12	13	248	41	44	50	49	91	—	—	1	—	6	2
Giza ...	7	—	—	—	72	167	—	—	11	33	37	70	128	15	159	194	110	112	1	—	3	—	3	5
Minia ...	—	—	—	—	8	5	—	—	—	10	30	22	68	54	81	82	44	19	1	—	2	—	5	3
Qena ...	1	—	—	—	13	9	—	—	—	1	16	7	94	55	46	50	101	98	—	—	3	5	3	1
TOTAL ...	53	16	1	—	814	836	1	—	57	401	603	597	2,603	598	3,812	4,114	4,898	4,383	6	5	71	59	208	263



TABLE NO. 22.—DEATHS FROM INFECTIOUS DISEASES, 1949—1950 (Contd.)

Localities		Influenza		Malaria New		Malaria Recurrent		Anthrax		Whooping Cough		Parotitis		Undulant Fev.		Leprosy		Tetanus		Acute Polio.		Erysipelas	
		49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo	...	14	9	3	4	—	—	1	—	19	11	3	—	—	—	7	—	25	32	—	1	17	17
Alexandria	...	—	2	1	1	—	—	—	—	7	17	—	—	—	—	—	—	2	32	2	—	10	10
Ismailia	...	1	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	8	3	—	—	—	1
Port-Saïd	...	1	2	1	—	—	—	—	—	3	1	—	—	—	—	—	—	3	4	2	—	2	—
Danielta	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Suez	...	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—
Frontier Districts	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Behera	...	13	2	—	3	—	—	—	—	4	1	—	—	—	—	1	5	32	37	—	—	2	—
Dakahlia	...	6	4	1	1	—	—	—	—	11	1	2	—	—	—	2	2	16	26	—	—	1	—
Fouadia	...	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	2	—	13	—	—	—	3
Gharbia	...	7	3	3	1	—	—	—	—	3	2	—	—	—	—	1	2	43	31	1	—	6	3
Mencufia	...	5	1	—	3	—	—	—	—	—	3	1	—	—	—	9	7	14	34	1	—	6	1
Qalubia	...	2	4	1	—	—	—	—	—	—	1	—	—	1	—	6	3	10	19	—	—	1	2
Sharkia	...	—	6	1	—	—	—	—	—	4	1	—	—	—	—	—	5	15	16	—	—	2	4
Aswan	...	8	1	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	—	—	—
Assiut	...	2	5	—	—	—	—	—	—	2	8	—	—	—	—	4	1	14	25	—	—	4	2
Beni Suef	...	13	10	—	—	—	—	—	—	4	—	—	—	—	—	1	3	4	10	—	—	—	1
Fayoum	...	—	3	—	—	—	—	—	—	7	—	—	—	—	—	3	1	3	4	—	—	4	3
Gerga	...	—	2	—	—	—	—	—	—	—	—	1	—	—	—	2	7	13	13	—	—	1	—
Giza	...	3	—	3	1	—	—	—	—	9	6	—	—	3	—	17	3	16	23	1	—	2	2
Minia	...	8	13	—	—	—	—	—	—	—	—	—	—	—	—	9	5	17	18	—	—	4	—
Qena	...	3	4	1	—	—	—	—	—	—	2	—	—	—	—	6	2	7	6	1	—	—	—
TOTAL	...	86	71	17	15	—	—	1	1	74	55	7	—	4	—	69	49	246	347	9	1	64	52

TABLE No. 23.—INFECTIOUS DISEASES DEATH RATES PER 100,000 POPULATION, 1949—1950

Localities	Typhus		Small-Pox		Typhoid		Scarlet F.		Cerebro Spinal F.		Diphtheria		Measles		Pulmonary Tuberculosis		Acute pneu monia		Chicken pox		Puerperal Sept		Dysentery	
	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo	0.1	1.4	—	—	16.4	14.2	—	—	1.4	6.8	6.9	5.4	35.4	11.6	66.8	69.2	79.7	63.9	0.05	0.08	0.9	0.8	3.0	3.9
Alexandria	0.5	—	—	—	9.9	7.1	—	—	0.4	6.8	5.4	7.2	52.4	6.0	62.7	59.3	173.4	140.1	0.3	—	0.8	1.0	4.9	4.7
Ismailia	—	—	—	—	5.2	5.0	—	—	—	1.4	2.6	1.4	12.2	2.8	38.3	39.3	178.6	166.3	—	—	—	—	3.5	4.3
Port-Saïd	—	—	—	—	12.2	13.8	—	—	1.6	3.1	10.0	2.6	8.5	4.6	69.3	75.7	23.8	25.0	—	—	—	0.5	2.1	1.5
Damietta	—	—	—	—	5.2	3.4	—	—	—	5.1	5.2	5.1	1.7	—	38.3	45.5	7.0	3.4	—	—	—	—	1.7	1.6
Suez	—	—	—	—	19.1	6.8	—	—	—	1.7	16.5	8.6	2.6	—	26.9	39.7	26.9	15.2	—	—	—	0.8	—	0.8
Frontier Districts	—	—	—	—	1.7	1.7	—	—	—	1.1	1.1	1.7	18.6	5.7	5.6	12.0	2.2	3.4	—	0.6	0.6	—	—	1.1
Behera	0.7	0.07	—	—	2.8	1.6	—	—	—	1.2	1.1	1.3	6.6	1.4	12.6	9.9	3.4	3.1	—	0.07	0.3	—	0.8	0.5
Dakahlia	1.3	0.2	—	—	1.1	2.0	—	—	—	0.4	1.3	1.0	7.1	0.4	10.2	15.6	2.9	1.8	—	—	0.3	0.1	0.4	0.07
Fouadia	—	—	—	—	—	0.4	—	—	—	—	—	0.9	—	—	—	4.4	—	2.1	—	—	—	—	—	0.2
Gharbia	0.04	0.1	—	—	1.8	2.3	—	—	0.2	1.7	3.3	4.7	3.1	0.06	8.3	11.1	10.1	14.7	—	—	—	—	—	0.5
Menoufia	0.4	—	—	—	1.6	1.0	—	0.08	—	0.6	3.1	2.9	4.6	1.8	8.0	7.9	4.4	4.0	0.08	—	0.2	0.08	0.3	0.2
Qalubia	—	0.3	—	—	2.9	4.0	—	—	—	1.3	3.7	6.1	1.9	—	13.2	14.0	8.5	6.5	—	—	0.1	—	0.4	0.3
Sharkia	0.2	0.07	—	—	1.7	1.2	—	—	0.2	1.7	1.6	1.4	5.6	0.4	7.1	10.4	7.6	4.5	—	—	0.2	0.4	0.7	—
Aswan	—	—	—	—	0.7	0.6	—	—	—	1.0	5.2	1.0	1.6	1.0	13.8	22.6	19.0	9.3	—	—	0.4	0.3	1.3	1.3
Assiut	—	0.1	—	—	1.1	0.3	—	—	—	0.3	1.7	1.6	15.8	1.3	8.9	7.5	5.3	6.0	—	—	0.6	0.1	0.7	—
Beni-Suef	—	—	—	—	0.5	0.3	—	—	0.2	0.3	1.2	1.1	6.1	0.2	10.6	9.8	26.6	10.8	—	0.2	0.4	—	—	—
Fayoum	—	—	—	—	1.1	2.5	—	—	0.1	2.7	4.1	2.0	4.1	2.0	14.3	15.3	2.0	2.5	—	—	0.4	0.1	0.1	0.1
Gerga	—	—	—	—	1.5	1.6	—	—	—	0.9	0.9	1.0	18.4	3.0	3.3	3.6	3.6	6.7	—	—	0.07	—	0.4	0.5
Giza	0.8	—	—	—	8.0	18.2	—	—	1.2	3.6	4.1	7.6	14.2	1.6	17.7	21.2	12.2	12.2	0.1	0.03	0.7	0.7	0.03	0.3
Minia	—	—	—	—	0.7	0.4	—	—	—	0.8	2.7	2.0	6.2	4.8	7.4	7.3	4.0	1.7	—	—	0.2	—	0.5	0.08
Qena	0.09	—	—	—	1.1	0.8	—	—	—	0.08	1.4	0.6	8.2	4.7	4.0	4.2	8.8	8.3	—	—	0.3	0.4	0.3	0.2
TOTAL	0.3	0.08	—	0.005	4.1	4.1	—	0.005	0.3	2.0	3.0	2.9	13.0	2.9	19.1	20.2	24.6	21.5	0.03	0.2	0.4	0.3	1.0	1.0



TABLE No. 23.—(contd.)

Localities		Influenza		Malaria-New		Malaria-Recurrent		Anthrax		Whooping C.		Parotitis (Mumps)		Undulant F.		Leprosy		Tetanus		Acute Poliomyelitis		Erysipelas	
		49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50	49	50
Cairo ...	...	0.6	0.4	0.1	1.4	—	—	0.06	—	0.5	0.5	0.9	—	0.05	—	0.3	—	1.1	1.4	—	0.04	0.8	0.8
Alexandria ...	...	—	0.2	0.1	0.1	—	—	—	—	0.7	1.7	—	—	—	—	—	—	0.2	3.2	0.2	—	1.0	1.0
Ismailia ...	...	0.9	—	0.9	—	—	—	—	—	0.9	0.7	—	—	—	—	—	—	2.6	2.1	—	—	—	0.7
Port-Saïd ...	...	0.5	1.0	0.5	—	—	—	—	—	—	0.5	—	—	—	—	—	—	1.6	2.0	1.0	—	1.0	—
Damietta ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.2	—	—	—	1.7	—
Suez ...	...	—	—	0.9	—	—	—	—	—	—	—	—	—	—	—	—	—	0.9	0.8	—	—	—	—
Frontier Districts ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Behera... ..	...	1.0	0.1	—	0.2	—	—	—	—	0.3	0.07	—	—	—	—	0.08	0.4	2.4	2.8	—	—	0.6	0.6
Dakahlia ...	...	0.4	0.3	0.07	0.07	—	—	—	—	0.7	0.07	0.1	—	—	—	0.1	0.1	1.1	1.7	—	—	0.2	—
Fouadia ...	...	—	—	—	0.1	—	—	—	—	—	—	—	—	—	—	—	0.2	—	1.6	—	—	—	0.4
Gharbia ...	...	0.2	0.2	0.1	0.06	—	—	0.06	—	0.1	0.1	—	—	—	—	0.04	0.1	1.8	1.8	0.04	—	0.2	0.2
Menoufia ...	...	0.4	0.08	—	0.2	—	—	—	—	—	0.2	0.08	—	—	—	0.7	0.7	1.1	2.7	0.08	—	0.4	0.08
Qaliubia ...	...	0.3	0.5	0.1	—	—	—	—	—	—	0.1	—	—	0.1	—	0.8	0.4	1.4	2.5	—	—	0.1	0.3
Sharkia ...	...	—	0.4	0.07	—	—	—	—	—	0.3	0.07	—	—	—	—	—	0.4	1.1	1.2	—	—	0.2	0.3
Aswan ...	...	2.6	0.3	—	—	—	—	—	—	—	—	—	—	—	—	0.3	0.3	—	—	—	—	—	—
Assiut ...	...	0.1	0.3	—	—	—	—	—	—	0.1	0.5	—	—	—	—	0.2	0.07	0.1	1.7	—	—	0.2	0.1
Beni Suef ...	...	2.0	1.5	—	—	—	—	—	—	0.8	—	—	—	—	—	0.2	0.5	0.4	1.5	—	—	—	0.2
Fayoum ...	...	—	0.4	—	—	—	—	—	—	1.0	—	—	—	—	—	0.4	0.1	0.4	0.7	—	—	0.1	0.4
Gerga ...	...	—	0.1	—	—	—	—	—	—	—	—	0.07	—	—	—	0.01	0.5	1.0	1.0	0.1	—	0.07	—
Giza ...	...	0.03	—	0.03	0.1	—	—	—	—	0.6	0.7	—	—	0.03	—	1.9	0.3	1.8	2.5	—	—	0.2	0.2
Minia ...	...	0.7	1.2	—	—	—	—	—	—	—	—	—	—	—	—	0.8	0.4	1.5	1.6	0.09	—	0.4	0.2
Qena ...	...	0.3	0.3	0.09	—	—	—	—	—	—	0.2	—	—	—	—	0.6	0.2	0.6	0.5	—	—	—	—
TOTAL		0.4	0.3	0.09	0.07	—	—	0.005	0.005	0.4	0.3	0.04	—	0.02	—	0.3	0.2	1.4	1.7	0.05	0.005	0.3	0.3

## Typhoid

TABLE NO. 24.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION, 1950

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	480	43	1047	78	1716	160	659	47	3,902	319	174.5
Alexandria ... ..	101	9	162	8	304	43	167	11	734	71	73.0
Ismailia ... ..	6	—	8	2	25	5	3	—	42	7	30.0
Port-saïd... ..	81	—	200	3	152	15	229	9	1,062	27	542.9
Domietta ... ..	4	—	8	—	22	1	10	1	44	2	74.2
Suez... ..	11	—	31	4	67	3	37	1	146	8	123.4
<b>TOTAL Governorates</b>	<b>683</b>	<b>43</b>	<b>1456</b>	<b>95</b>	<b>2,686</b>	<b>227</b>	<b>1,105</b>	<b>69</b>	<b>5,430</b>	<b>434</b>	<b>157.9</b>
Frontier Districts ...	3	1	3	—	8	2	2	—	16	3	9.1
Behera ... ..	19	3	35	2	109	7	64	9	227	24	17.0
Dakahlia ... ..	21	8	48	6	89	10	39	7	197	31	12.9
Fouadia ... ..	1	—	7	1	10	1	1	1	19	3	2.3
Gharbia ... ..	24	3	52	6	127	29	50	1	248	39	14.5
Menoufia... ..	13	3	16	1	37	3	17	6	81	13	6.5
Qaliubia ... ..	9	1	27	5	96	10	41	8	173	30	23.1
Sharkia ... ..	13	3	14	1	43	9	28	4	98	17	7.1
<b>TOTAL Lower Egypt</b>	<b>100</b>	<b>21</b>	<b>199</b>	<b>22</b>	<b>504</b>	<b>75</b>	<b>240</b>	<b>36</b>	<b>1,043</b>	<b>154</b>	<b>11.9</b>
Aswan ... ..	1	—	4	2	1	0	6	—	12	2	3.9
Assiut ... ..	23	2	21	—	63	9	61	9	168	20	11.5
Beni-Suef ... ..	4	—	4	—	15	1	11	1	34	2	5.2
Fayoum ... ..	8	2	28	2	43	9	16	5	95	18	13.3
Gerga ... ..	6	1	22	6	45	10	47	5	120	22	8.8
Giza ... ..	25	4	64	36	168	102	101	25	358	167	39.1
Minia ... ..	10	—	14	2	16	1	23	2	66	5	5.9
Qena ... ..	7	—	14	6	7	2	16	1	44	9	3.8
<b>TOTAL Upper Egypt</b>	<b>84</b>	<b>9</b>	<b>171</b>	<b>54</b>	<b>358</b>	<b>137</b>	<b>284</b>	<b>48</b>	<b>897</b>	<b>245</b>	<b>11.9</b>
<b>GRAND TOTAL ...</b>	<b>870</b>	<b>74</b>	<b>1,820</b>	<b>171</b>	<b>3,556</b>	<b>438</b>	<b>1,631</b>	<b>153</b>	<b>7,886</b>	<b>836</b>	<b>38.7</b>



## Cerebro Spinal Fever

TABLE NO. 25.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	807	92	398	41	60	14	42	6	1307	153	58·4
Alexandria ... ..	174	27	183	27	39	12	7	2	403	68	40·0
Ismailia ... ..	10	1	8	1	1	—	—	—	19	2	13·6
Port-Saïd ... ..	41	5	18	—	8	—	7	1	74	6	37·8
Damietta ... ..	3	2	4	1	—	—	—	—	7	3	11·8
Suez... ..	27	2	15	—	—	—	—	—	42	2	35·5
<b>TOTAL Governorates</b>	<b>1,062</b>	<b>129</b>	<b>626</b>	<b>79</b>	<b>108</b>	<b>26</b>	<b>56</b>	<b>9</b>	<b>1,852</b>	<b>234</b>	<b>49·3</b>
Frontier Districts ...	5	2	2	—	—	—	—	—	7	2	4·0
Behera ... ..	16	6	35	7	8	3	3	—	62	16	4·6
Dakahlia ... ..	24	3	24	2	—	1	2	—	50	6	3·3
Fouadia ... ..	4	—	1	—	—	—	—	—	5	—	0·6
Gharbia ... ..	51	4	76	16	13	5	8	3	148	28	8·7
Menoufia... ..	9	1	12	5	—	1	1	—	22	7	1·8
Qaliubia ... ..	27	4	10	4	6	2	2	—	45	10	6·0
Sharkia ... ..	35	8	37	11	1	2	3	2	76	23	5·5
<b>TOTAL Lower Egypt</b>	<b>166</b>	<b>26</b>	<b>195</b>	<b>45</b>	<b>28</b>	<b>14</b>	<b>19</b>	<b>5</b>	<b>408</b>	<b>90</b>	<b>4·7</b>
Aswan ... ..	4	1	6	2	—	—	—	—	10	3	3·2
Assiut ... ..	34	6	29	4	3	1	4	1	79	12	4·8
Beni-Suef ... ..	4	1	3	1	—	—	—	—	7	2	1·1
Fayoum ... ..	3	1	1	1	—	—	—	—	4	2	0·6
Gerga ... ..	13	7	19	2	3	3	7	—	42	12	3·1
Giza ... ..	53	18	41	10	—	5	5	—	99	33	10·8
Minia ... ..	7	4	8	5	1	1	—	—	16	10	1·4
Qena ... ..	1	0	1	1	—	—	2	—	6	1	0·5
<b>TOTAL Upper Egypt</b>	<b>119</b>	<b>38</b>	<b>168</b>	<b>26</b>	<b>9</b>	<b>19</b>	<b>18</b>	<b>1</b>	<b>254</b>	<b>75</b>	<b>3·3</b>
<b>GRAND TOTAL ...</b>	<b>1,352</b>	<b>195</b>	<b>931</b>	<b>141</b>	<b>145</b>	<b>50</b>	<b>93</b>	<b>15</b>	<b>2,521</b>	<b>401</b>	<b>12·4</b>

## Acute Pneumonia

TABLE NO. 26 — QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000. Popula- tion
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	644	416	585	369	420	327	494	317	2163	1429	96.7
Alexandria ... ..	725	437	849	336	751	338	654	298	2979	1409	296.2
Ismailia ... ..	11	75	6	51	6	41	7	66	30	233	21.4
Port-Saïd ... ..	72	10	113	11	37	14	66	14	288	49	147.2
Damietta ... ..	8	—	5	—	4	2	—	—	17	2	28.7
Suez... ..	42	7	39	5	25	6	19	—	125	18	105.7
<b>TOTAL Governorates</b>	<b>1522</b>	<b>945</b>	<b>1597</b>	<b>772</b>	<b>1243</b>	<b>728</b>	<b>1240</b>	<b>695</b>	<b>5602</b>	<b>3140</b>	<b>149.0</b>
Frontier Districts...	6	1	4	1	5	2	4	2	19	6	10.8
Behera ... ..	9	9	16	13	11	8	18	11	54	41	4.0
Dakahlia ... ..	13	7	17	8	9	6	7	6	46	27	3.0
Fouadia ... ..	8	10	4	4	4	3	1	—	17	17	2.1
Gharbia ... ..	32	112	44	82	15	21	23	35	114	250	6.7
Menoufia... ..	8	16	11	11	2	5	4	18	25	50	2.0
Qaliubia ... ..	35	9	23	8	14	20	9	12	81	49	10.8
Sharkia ... ..	3	16	12	21	3	5	4	20	22	62	1.6
<b>TOTAL Lower Egypt</b>	<b>108</b>	<b>179</b>	<b>127</b>	<b>147</b>	<b>58</b>	<b>68</b>	<b>66</b>	<b>102</b>	<b>359</b>	<b>496</b>	<b>4.1</b>
Aswan ... ..	5	41	1	113	1	45	1	46	8	245	2.6
Assiut ... ..	27	16	45	30	14	25	12	16	98	87	6.7
Beni-Suef ... ..	4	29	2	18	1	13	1	11	8	71	1.2
Fayoum ... ..	8	5	13	5	3	4	9	4	33	18	4.6
Gerga ... ..	27	38	14	11	10	14	8	28	59	91	4.3
Giza ... ..	30	26	42	39	32	34	18	13	122	112	13.3
Minia ... ..	10	5	11	9	3	3	10	2	34	19	3.0
Qena ... ..	14	42	13	18	3	8	14	30	44	98	3.8
<b>TOTAL Upper Egypt</b>	<b>125</b>	<b>202</b>	<b>141</b>	<b>243</b>	<b>67</b>	<b>146</b>	<b>73</b>	<b>150</b>	<b>406</b>	<b>741</b>	<b>5.3</b>
<b>GRAND TOTAL ...</b>	<b>1761</b>	<b>1327</b>	<b>1869</b>	<b>1163</b>	<b>1373</b>	<b>944</b>	<b>1383</b>	<b>949</b>	<b>6386</b>	<b>4383</b>	<b>31.3</b>



## Chicken Pox

TABLE No. 27.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	254	1	380	1	26	—	71	—	731	2	32·7
Alexandria ... ..	195	—	327	—	13	—	36	—	571	—	56·8
Ismailia ... ..	—	—	1	—	1	—	—	—	2	—	1·4
Port-Saïd ... ..	55	—	125	—	2	—	14	—	196	—	100·2
Damietta ... ..	—	—	5	—	—	—	—	—	5	—	8·4
Suez ... ..	21	—	34	—	1	—	2	—	58	—	49·0
<b>TOTAL Governorates</b>	<b>525</b>	<b>1</b>	<b>872</b>	<b>1</b>	<b>43</b>	<b>—</b>	<b>123</b>	<b>—</b>	<b>1563</b>	<b>2</b>	<b>41·6</b>
<b>Frontier Districts</b>	<b>32</b>	<b>—</b>	<b>3</b>	<b>—</b>	<b>2</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>37</b>	<b>—</b>	<b>21·1</b>
Behera ... ..	5	1	52	—	—	—	12	—	69	1	5·2
Dakahlia ... ..	4	—	9	—	—	—	6	—	19	—	1·2
Fouadia ... ..	4	—	7	—	4	—	—	—	15	—	1·9
Gharbia ... ..	34	—	38	—	2	—	12	—	86	—	5·0
Menoufia ... ..	5	—	9	—	1	—	4	—	19	—	1·5
Qaliubia ... ..	6	—	16	—	—	—	12	—	34	—	4·5
Sharkia ... ..	16	—	38	—	1	—	3	—	58	—	4·0
<b>TOTAL Lower Egypt</b>	<b>74</b>	<b>1</b>	<b>169</b>	<b>—</b>	<b>8</b>	<b>—</b>	<b>49</b>	<b>—</b>	<b>300</b>	<b>1</b>	<b>3·4</b>
Aswan ... ..	—	—	3	—	—	—	—	—	3	—	1·0
Assiut ... ..	2	—	10	—	—	—	—	—	12	—	0·8
Beni-Suef ... ..	4	—	8	—	—	—	1	1	13	1	2·0
Fayoum ... ..	2	—	14	—	2	—	1	—	19	—	2·7
Gerga ... ..	9	—	3	—	—	—	—	—	12	—	0·9
Giza ... ..	24	1	20	—	—	—	27	—	71	1	7·8
Minia ... ..	3	—	8	—	—	—	—	—	11	—	1·0
Qena ... ..	2	—	—	—	—	—	—	—	2	—	0·2
<b>TOTAL Upper Egypt</b>	<b>46</b>	<b>1</b>	<b>66</b>	<b>—</b>	<b>2</b>	<b>—</b>	<b>29</b>	<b>1</b>	<b>143</b>	<b>2</b>	<b>1·9</b>
<b>GRAND TOTAL ...</b>	<b>677</b>	<b>3</b>	<b>1110</b>	<b>1</b>	<b>55</b>	<b>—</b>	<b>201</b>	<b>1</b>	<b>2043</b>	<b>5</b>	<b>10·0</b>

## Measles

TABLE NO. 28.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		(Case rate per 100,000 Popula- tion)
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	31	8	192	101	219	108	144	43	586	260	26.2
Alexandria ... ..	23	1	367	18	337	34	453	7	1,180	60	117.3
Ismailia ... ..	—	1	—	2	1	1	—	—	1	4	0.7
Port-Saïd ... ..	1	—	17	2	17	3	50	4	85	9	43.5
Damietta ... ..	—	—	—	—	—	—	—	—	—	—	—
Suez... ..	4	—	—	—	1	—	3	—	8	—	6.8
<b>TOTAL Governorates</b>	<b>59</b>	<b>10</b>	<b>576</b>	<b>123</b>	<b>575</b>	<b>146</b>	<b>650</b>	<b>54</b>	<b>1,860</b>	<b>333</b>	<b>59.5</b>
Frontier Districts ...	3	3	—	—	7	—	89	7	99	10	56.4
Behera ... ..	20	2	34	13	4	4	2	—	60	19	4.5
Dakahlia ... ..	12	—	13	6	2	—	1	—	28	6	1.8
Fouadia ... ..	—	—	9	—	—	—	—	—	9	—	1.1
Gharbia ... ..	8	—	18	1	29	—	7	—	62	1	3.6
Menoufia... ..	29	12	20	3	2	—	120	8	171	23	13.7
Qaliubia ... ..	—	—	6	—	4	—	1	—	11	—	1.5
Sharkia ... ..	—	—	7	—	1	—	9	5	17	5	1.2
<b>TOTAL Lower Egypt</b>	<b>69</b>	<b>14</b>	<b>197</b>	<b>23</b>	<b>42</b>	<b>4</b>	<b>140</b>	<b>13</b>	<b>358</b>	<b>54</b>	<b>4.1</b>
Aswan ... ..	—	—	—	—	—	2	—	—	—	2	—
Assiut ... ..	15	1	7	11	5	3	5	4	32	19	2.2
Beni-Suef ... ..	7	—	13	—	8	1	1	—	29	1	4.4
Fayoum ... ..	4	—	7	—	2	—	49	14	62	14	8.7
Gerga ... ..	49	35	5	—	20	5	13	1	87	41	6.4
Giza ... ..	2	—	13	6	6	7	11	2	32	15	3.5
Minia ... ..	11	5	178	34	141	8	49	7	379	54	33.7
Qena ... ..	30	13	84	32	12	9	4	1	130	55	11.1
<b>TOTAL Upper Egypt</b>	<b>118</b>	<b>54</b>	<b>307</b>	<b>83</b>	<b>194</b>	<b>35</b>	<b>132</b>	<b>29</b>	<b>751</b>	<b>201</b>	<b>9.7</b>
<b>GRAND TOTAL ...</b>	<b>249</b>	<b>81</b>	<b>990</b>	<b>229</b>	<b>818</b>	<b>185</b>	<b>1,011</b>	<b>103</b>	<b>3,668</b>	<b>598</b>	<b>15.0</b>



## Diphtheria

TABLE No. 29.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 POPULATION.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	110	26	94	19	149	29	185	46	538	120	24·1
Alexandria ... ..	69	15	23	4	53	18	112	35	257	72	25·6
Ismailia ... ..	2	1	1	—	3	—	7	1	13	2	9·3
Port-Saïd ... ..	16	1	13	—	4	2	9	2	42	5	21·5
Suez... ..	2	1	—	—	—	1	1	1	3	3	5·1
Damietta ... ..	8	1	3	1	2	1	7	5	20	8	16·9
<b>TOTAL Governorate</b>	<b>207</b>	<b>45</b>	<b>134</b>	<b>24</b>	<b>211</b>	<b>51</b>	<b>321</b>	<b>90</b>	<b>873</b>	<b>210</b>	<b>23·3</b>
Frontier Districts	<b>2</b>	<b>1</b>	—	—	—	—	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	1·7
Bahra ... ..	4	2	6	2	9	4	18	9	37	17	2·8
Dakahlia ... ..	7	1	5	—	13	8	8	6	33	15	2·2
Fouadia ... ..	—	—	3	2	5	4	3	1	11	7	1·4
Gharbia ... ..	9	8	18	12	32	32	49	29	108	81	6·3
Meroufia... ..	4	3	5	1	12	17	12	15	33	36	2·7
Qaliubia ... ..	6	2	4	5	20	16	29	23	59	46	7·9
Sharkia ... ..	8	5	14	2	10	4	22	8	54	19	3·9
<b>TOTAL Lower Egypt</b>	<b>38</b>	<b>21</b>	<b>55</b>	<b>24</b>	<b>101</b>	<b>85</b>	<b>141</b>	<b>91</b>	<b>335</b>	<b>221</b>	<b>3·8</b>
Aswan ... ..	1	1	2	1	—	—	—	—	3	2	1·0
Assiut ... ..	10	3	9	6	6	3	26	11	51	23	3·5
Beni-Suef ... ..	—	1	2	1	4	2	8	3	14	7	2·2
Fayoum ... ..	5	4	—	—	3	3	14	12	22	19	3·1
Gerga ... ..	2	2	2	4	3	3	5	4	12	13	0·9
Giza ... ..	7	9	8	9	13	28	14	24	42	70	4·6
Minia ... ..	4	3	3	2	7	4	12	13	26	22	2·3
Qena ... ..	1	1	3	2	1	1	3	3	8	7	0·7
<b>TOTAL Upper Egypt</b>	<b>30</b>	<b>24</b>	<b>29</b>	<b>25</b>	<b>37</b>	<b>44</b>	<b>82</b>	<b>70</b>	<b>178</b>	<b>163</b>	<b>2·3</b>
<b>GRAND TOTAL ...</b>	<b>277</b>	<b>91</b>	<b>218</b>	<b>73</b>	<b>349</b>	<b>180</b>	<b>545</b>	<b>253</b>	<b>1,389</b>	<b>597</b>	<b>6·8</b>

## Dysentery

TABLE NO. 30— QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE RATES  
PER 100,000 OF POPULATION

Localities	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		TOTAL		Case-rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	18	12	43	12	77	42	41	21	179	87	8.0
Alexandria ... ..	30	8	83	12	109	14	39	13	261	47	26.0
Ismailia ... ..	—	—	—	1	1	2	1	3	2	6	1.4
Port-Said ... ..	7	—	11	—	10	1	4	2	32	3	16.4
Damietta ... ..	—	—	—	—	—	—	—	1	—	1	—
Suez... ..	6	—	31	—	23	—	7	1	67	1	56.6
<b>TOTAL Governorates</b>	<b>61</b>	<b>20</b>	<b>168</b>	<b>25</b>	<b>220</b>	<b>59</b>	<b>92</b>	<b>41</b>	<b>541</b>	<b>145</b>	<b>14.4</b>
Frontier Districts...	<b>11</b>	—	<b>17</b>	—	<b>10</b>	<b>1</b>	<b>14</b>	<b>1</b>	<b>52</b>	<b>2</b>	<b>29.6</b>
Behera ... ..	3	3	2	—	1	3	1	1	7	7	0.5
Dakahlia... ..	1	—	7	1	8	—	5	—	21	1	1.4
Fouadia ... ..	7	—	5	—	10	—	7	2	29	2	3.6
Gharbia ... ..	9	1	7	3	8	3	1	1	25	8	1.5
Menoufia ... ..	—	1	7	—	4	1	1	1	12	3	1.0
Qaliubia ... ..	1	—	7	—	2	—	5	2	15	2	2.0
Sharkia ... ..	1	1	9	2	11	—	42	—	63	3	4.6
<b>TOTAL Lower Egypt</b>	<b>22</b>	<b>6</b>	<b>44</b>	<b>6</b>	<b>44</b>	<b>7</b>	<b>62</b>	<b>7</b>	<b>172</b>	<b>26</b>	<b>2.0</b>
Aswan ... ..	3	—	2	—	2	—	—	—	7	—	2.3
Assiut ... ..	5	4	18	2	15	5	10	8	48	19	3.3
Beni-Suef ... ..	2	—	2	—	2	—	—	—	6	—	0.9
Fayoum ... ..	28	—	42	—	6	—	4	—	80	—	8.4
Gerga ... ..	1	1	5	—	8	1	5	—	19	2	1.4
Giza... ..	—	1	1	1	4	1	—	2	5	5	0.5
Minia ... ..	39	1	35	—	29	2	107	—	210	3	18.7
Qena ... ..	3	—	15	—	20	—	12	1	50	1	4.3
<b>TOTAL Upper Egypt</b>	<b>81</b>	<b>7</b>	<b>120</b>	<b>3</b>	<b>86</b>	<b>9</b>	<b>138</b>	<b>11</b>	<b>425</b>	<b>30</b>	<b>5.5</b>
<b>GRAND TOTAL ...</b>	<b>175</b>	<b>33</b>	<b>349</b>	<b>34</b>	<b>360</b>	<b>76</b>	<b>306</b>	<b>60</b>	<b>1,190</b>	<b>203</b>	<b>5.8</b>



Influenza

TABLE No. 31.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Popula- tion
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	589	5	834	—	969	2	390	2	2782	9	124·4
Alexandria ... ..	375	1	618	—	740	—	424	1	2157	2	214·5
Ismailia ... ..	2	—	13	—	16	—	4	—	35	—	25·0
Port-Saïd ... ..	156	2	221	—	204	—	96	—	677	2	346·1
Suez... ..	14	—	10	—	12	—	5	—	41	—	69·1
Damietta ... ..	11	—	23	—	19	—	13	—	66	—	55·7
<b>TOTAL Governorates</b>	<b>1147</b>	<b>8</b>	<b>1719</b>	<b>—</b>	<b>1960</b>	<b>2</b>	<b>932</b>	<b>3</b>	<b>5758</b>	<b>13</b>	<b>153·3</b>
Frontier Districts...	5	—	10	—	5	—	—	—	20	—	11·4
Behera ... ..	15	—	49	1	40	1	29	—	133	2	9·9
Dakahlia ... ..	49	1	55	1	46	1	22	1	172	4	11·3
Fouadia ... ..	21	—	20	—	16	—	5	—	62	—	7·7
Gharbia ... ..	43	—	103	1	96	1	39	1	281	3	16·5
Menoufia... ..	20	—	38	1	33	—	23	—	114	1	9·2
Qaliubia ... ..	28	—	70	1	82	2	53	1	233	4	31·1
Sharkia ... ..	13	—	29	—	31	5	13	1	86	6	6·3
<b>TOTAL Lower Egypt</b>	<b>189</b>	<b>1</b>	<b>364</b>	<b>5</b>	<b>344</b>	<b>10</b>	<b>184</b>	<b>4</b>	<b>1081</b>	<b>20</b>	<b>12·4</b>
Aswan ... ..	11	—	7	—	11	—	10	1	39	1	12·6
Assiut ... ..	58	1	56	2	80	1	45	1	239	5	16·4
Beni-Suef ... ..	5	—	22	7	19	1	11	2	57	10	8·7
Fayoum ... ..	7	—	6	2	8	—	7	1	28	3	3·9
Gerga ... ..	10	—	16	2	19	—	22	—	67	2	4·9
Giza ... ..	20	—	85	—	90	—	38	—	233	—	25·5
Minia ... ..	35	2	61	6	28	4	22	1	146	13	13·0
Qena ... ..	26	—	35	1	23	1	29	2	113	4	9·6
<b>TOTAL Upper Egypt</b>	<b>172</b>	<b>3</b>	<b>288</b>	<b>20</b>	<b>278</b>	<b>7</b>	<b>184</b>	<b>8</b>	<b>922</b>	<b>38</b>	<b>11·9</b>
<b>GRAND TOTAL ...</b>	<b>1513</b>	<b>12</b>	<b>2381</b>	<b>25</b>	<b>2587</b>	<b>19</b>	<b>1300</b>	<b>15</b>	<b>7781</b>	<b>71</b>	<b>38·2</b>

## Malaria New

TABLE NO. 32.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Population
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	14	1	122	1	239	—	134	2	559	4	22·8
Alexandria ... ..	7	—	18	—	48	1	18	—	91	1	9·0
Ismailia ... ..	5	—	13	—	21	—	17	—	56	—	40·0
Port-Saïd ... ..	—	—	21	—	37	—	19	—	77	—	39·4
Damietta ... ..	—	—	3	—	10	—	1	—	14	—	23·6
Suez... ..	—	—	3	—	8	—	1	—	12	—	10·1
<b>TOTAL Governorates</b>	<b>26</b>	<b>1</b>	<b>180</b>	<b>1</b>	<b>363</b>	<b>1</b>	<b>190</b>	<b>2</b>	<b>759</b>	<b>5</b>	<b>20·2</b>
Frontier Districts...	<b>14</b>	<b>-</b>	<b>6</b>	<b>—</b>	<b>10</b>	<b>—</b>	<b>123</b>	<b>—</b>	<b>153</b>	<b>—</b>	<b>87·1</b>
Behera ... ..	1	—	6	1	42	1	139	1	188	3	14·0
Dakahlia ... ..	9	—	36	1	135	—	91	—	271	1	17·7
Fouadia ... ..	74	—	25	1	65	—	18	—	182	1	22·5
Gharbia ... ..	3	—	20	—	66	1	40	—	129	1	7·6
Menoufia... ..	2	—	4	1	13	—	7	2	26	3	2·1
Qaliubia ... ..	9	—	102	—	217	—	90	—	418	—	55·8
Sharkia ... ..	25	—	264	—	428	—	208	—	925	—	67·4
<b>TOTAL Lower Egypt</b>	<b>123</b>	<b>—</b>	<b>457</b>	<b>4</b>	<b>966</b>	<b>2</b>	<b>593</b>	<b>3</b>	<b>2,139</b>	<b>9</b>	<b>24·5</b>
Aswan ... ..	—	—	—	—	—	—	—	—	—	—	—
Assiut ... ..	1	—	10	—	32	—	29	—	72	—	4·9
Beni-Suef ... ..	1	—	2	—	100	—	136	—	239	—	36·5
Fayoum ... ..	12	—	9	—	13	—	26	—	60	—	8·4
Gerga ... ..	—	—	1	—	7	—	4	—	12	1	0·9
Giza ... ..	7	—	65	—	116	—	66	1	254	—	27·7
Minia ... ..	10	—	142	—	201	—	162	—	515	—	45·8
Qena ... ..	1	—	4	—	15	—	28	—	48	—	4·1
<b>TOTAL Upper Egypt</b>	<b>32</b>	<b>—</b>	<b>233</b>	<b>—</b>	<b>484</b>	<b>—</b>	<b>451</b>	<b>1</b>	<b>1,240</b>	<b>1</b>	<b>15·6</b>
<b>GRAND TOTAL ...</b>	<b>195</b>	<b>1</b>	<b>876</b>	<b>5</b>	<b>1,823</b>	<b>3</b>	<b>1,357</b>	<b>6</b>	<b>4,251</b>	<b>15</b>	<b>20·8</b>



## Whooping Cough

TABLE NO. 33.—QUARTERLY DISTRIBUTION OF CASES, DEATHS AND CASE-RATES  
PER 100,000 OF POPULATION

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Popula- tion
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	32	3	40	1	31	4	33	3	136	11	6·1
Alexanadria ... ..	72	6	99	8	68	3	28	—	267	17	26·6
Ismailia ... ..	3	1	—	—	—	—	—	—	3	1	2·1
Port-Saïd ... ..	—	—	—	—	4	—	1	1	5	1	2·6
Damietta ... ..	—	—	—	—	—	—	—	—	—	—	—
Suez... ..	1	—	10	—	1	—	—	—	12	—	10·1
<b>TOTAL Governorates</b>	<b>108</b>	<b>10</b>	<b>149</b>	<b>9</b>	<b>104</b>	<b>7</b>	<b>62</b>	<b>4</b>	<b>423</b>	<b>30</b>	<b>11·3</b>
Frontier Districts ...	—	—	—	—	—	—	—	—	—	—	—
Behera ... ..	5	—	15	1	—	—	1	—	21	1	1·6
Dakahlia ... ..	1	—	2	—	—	1	—	—	3	1	0·2
Fouadia ... ..	—	—	—	—	—	—	—	—	—	—	—
Gharbia ... ..	30	—	1	1	1	—	3	1	35	2	2·1
Menoufia ... ..	5	—	3	—	2	—	19	3	29	3	2·3
Qaliubia ... ..	5	1	1	—	—	—	—	—	6	1	0·8
Sharkia ... ..	2	1	12	—	2	—	4	—	20	1	1·5
<b>TOTAL Lower Egypt</b>	<b>48</b>	<b>2</b>	<b>34</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>27</b>	<b>4</b>	<b>114</b>	<b>9</b>	<b>1·3</b>
Aswan ... ..	—	—	—	—	—	—	7	—	7	—	2·3
Assiut ... ..	6	—	19	7	—	—	2	1	27	8	1·8
Beni-Suef ... ..	—	—	—	—	—	—	—	—	—	—	—
Fayoum ... ..	19	—	67	—	6	—	2	—	94	—	13·2
Gerga ... ..	5	—	—	—	—	—	—	—	5	—	0·4
Giza ... ..	132	2	60	3	4	—	51	1	247	6	27·0
Minia ... ..	8	—	16	—	2	—	1	—	27	—	2·4
Qena ... ..	36	2	9	—	—	—	—	—	45	2	3·8
<b>TOTAL Upper Egypt</b>	<b>206</b>	<b>4</b>	<b>171</b>	<b>10</b>	<b>12</b>	<b>—</b>	<b>63</b>	<b>2</b>	<b>452</b>	<b>16</b>	<b>5·9</b>
<b>GRAND TOTAL ...</b>	<b>362</b>	<b>16</b>	<b>354</b>	<b>21</b>	<b>121</b>	<b>8</b>	<b>152</b>	<b>10</b>	<b>989</b>	<b>55</b>	<b>4·8</b>

## Chapter III.—Frontier Districts Medical Service.

### *Health Statistics :*

According to the 1947 census, the population of the frontier districts was 185,187.

During the year under review, 7,884 births or 4.2 per thousand of the population were recorded as against 4.4 per thousand in 1949. Deaths totalled 2,654 or 1.43 per thousand of the population as against 1.58 per thousand in the previous year.

The lower death rate this year is attributed to secret burial practised by bedouins scattered all over the deserts, especially the Western and Sinai deserts.

Infantile deaths under one year of age numbered 1,026 i.e. 38% of total deaths ; main causes being congenital debility and enteritis. In Tor town with a population of 1,550 inhabitants, 58 births and 62 deaths were recorded during the year. The high mortality is explained by the recording of deaths occurring among pilgrims in segregation at Tor lazaret.

### *Preliminary Anti Small Pox Vaccination :*

Of a total of 7,523 infants receiving anti small pox preliminary vaccination, 6,699 or 89% were successful.

### *Protective Measures and Disinfection :*

These duties have so far been performed by inexperienced hospital personnel. It has been decided to appoint ten disinfectors to these districts. Five of these have already been appointed.

### *Infectious Diseases :*

With the exception of 12 cases recorded in Amria district, no cases of typhus were notified from all frontier districts. Seven cases of cerebro spinal fever were reported: 5 in Kantara East, one in Amria and one in Kharga oasis. Measles spread in Kharga oasis and Wadi Natroun, 101 cases having been reported in the former and 40 cases in the latter. 121 cases of malignant malaria were recorded in Siwa. Table No. 34 gives details of the incidence of infectious diseases in Frontier Districts during 1950.

### *General Vaccination :*

During the year, the following vaccinations were done in all the Frontier Districts : 15,092 against typhoid, 1,859 against diphtheria and 196 against cholera. None were done against plague. The following table No. 45 gives details of these vaccinations.

### *Drinking Water Supplies in Frontier Districts :*

The population is divided into two sections : one inhabits the oases and obtains his drinking water from natural artesian wells (springs) where water is available day and night. Water is carried by the inhabitants to their homes by their own means. The other section consists of bedouins. Those of the Western desert obtain their drinking water from filtered water mains running from Alexandria to Mersa Matrouh. At the end of the pipes at Mersa Matrouh, the water pressure is small and additional water is obtained from Roman cisterns. At Sidi Barrani, water is drawn from underground wells. Both the latter sources are unfiltered.

In the Eastern desert, the population in Arish draw their drinking water from artesian wells. In Kantara East, there is a filtered water plant.

At Abu Zenema and Hurghada, the population, mostly personnel of industrial enterprises, obtain their drinking water from Suez filtered Water Works by means of water tanks on vessels traversing that region.

Quseir, Safaga and Sollum areas use condensers for turning sea water for drinking purposes.



### *Sewage Disposal :*

No public sewage systems exist in the frontier districts. In the oases, the population use closed pits, the contents of which when filled up, are removed to gardens for use as manure.

Bedouins living in tents ease nature in the open.

In desert areas where industrial enterprises have set up their installations, the habitations of their personnel are provided with pail systems. Pails are emptied in ditches which are filled up. Refuse is disposed of by burning in incinerators or, where none exist, is thrown in the open.

### *Birkas :*

These are formed where natural springs exist at Wadi Natroun, Arish, Tor, Siwa and Baharia oases. At Dakhla and Kharga oases, birkas are formed from water left over after rice irrigation. No birkas were filled in during the year; the spraying with malariol carried out by the Malaria Section being considered adequate.

### *Foodstuffs :*

The small number of samples of foodstuffs taken for examination may be explained by : (a) the low economic level in frontier districts which does not encourage the establishment of large premises with large capitals and requiring sanitary requirements and (b) the lack of sanitary overseers to supervise the districts. Only three overseers have been appointed during the latter half of this year.

### *Municipal and Village Councils :*

A few municipal and village councils have been set up in some of the districts. The first is only a few years old. The general sanitation of the districts, which is a primary duty of these councils have, before their setting up, been carried out by scavengers of the public health offices and are still carried out by the same scavengers. Nor have these councils done anything about main water supplies.

### *Cemeteries :*

There are no properly demarcated cemeteries in the frontier districts. The Arabs bury their dead wherever they happen to be in the desert at the time.

### *Unhealthy Establishments :*

Table No. 38 shows an increase in the number of unhealthy establishments licensed during this year and the year before at Arish, Kharga Oases, Amria and Kantara East. These are the localities to which sanitary overseers have recently been appointed.

### *Slaughter Houses :*

With the exception of Sollum, Hammam and Abu Zenema, all frontier districts medical units have slaughter houses under their supervision. So far, these are few in number and exist in localities having municipal or village councils. It is hoped that more will be provided as and where municipal or village councils are set up.

### *Medico-legal activities :*

Table No. 40 gives details of medico legal cases in the Frontier Districts. It will be observed that the fatal and serious criminal cases are very few in comparison with the total cases. Where no cases were recorded, no medical officers were available throughout the year.

### *Propaganda :*

Propaganda is not attractive in frontier districts since it consists of sermons and lectures. It is suggested that two mobile propaganda units with a cinema apparatus would be more effective by touring the districts.

### *Venereal Diseases :*

These are seldom met with in the in-patient or out-patient clinics, which may be explained by either the ignorance of the people, their practice of not submitting such cases to medical officers or the scarcity of these diseases among the population.

### *Medical Personnel :*

Table No. 41 gives the number of medical officers, midwives, sanitary barbers and dayas in service in the frontier districts.

### *Hospitals :*

There are 15 state and private hospitals in operation in the various frontier districts. These have an accommodation of 221 beds and employ 16 medical officers. Six hospitals and five medical officers belong to private firms. A total of 2,899 in-patients and 103,092 new out-patients were treated at these hospitals during the year. The latter figure, however, does not include patients treated by the out-patient dispensaries annexed to public health offices to render treatment in localities having no hospitals.

For full details, please see table No. 44.

### *Public Health Offices Provided with Dispensaries :*

Seven of the health offices are provided with dispensaries which have given treatment to some 34,783 patients. Treatment is free of charge in all frontier districts even when private concerns exist. This number does not include patients treated at hospital out-patient departments.

Table No. 46 gives details of these health offices and patients treated by each.



TABLE No. 34—SHOWING INFECTIOUS DISEASES RECORDED IN FRONTIER DISTRICTS DURING 1950.

	Cholera	Plague	Typhus	Small Pox	Anthrax	Relapsing Fever	Cerebro Spinal fever	Typhoid	Para Typhoid	Scarlet fever.	Encephalitis Lethargica	Diphtheria	Measles	Whooping Cough	Mumps	Pneumonia	Yellow Fever	Leprosy	Glanders	Rabies	Tetanus	T.B. of the Respiratory Sys.	Chicken Pox	Influenza	Puerperal fever	Am. Dysentery	B. Dysentery	Benign Malaria	Malignant Malaria	Erysipelas
Sollum...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sidi Barrani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quseir...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hamman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dabaa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wadi Natroun	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Safaga...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arish ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kharga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kantara East	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tor ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hurghada	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abu Zenema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dakhla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Siwa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baharia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mersa Matrouh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	12	1	...	...	7	16	5	...	...	4	142	4	77	20	...	1	1	...	...	23	57	87	2	63	...	38	124	10

TABLE No. 35.—FOODSTUFFS

Locality	Samples taken for analysis	Foodstuffs condemned with consent of owners
Quseir ... ..	3 milk	Wone
Arish ... ..	1 cheese 1 masli 1 aerated water	Wone
Kharga oases ... ..	3 masli 2 cheese	16 tins cherry, sauce and sardines 50 Kilos white cheese
Amria ... ..	1 flour... 3 aniseed 3 tea 2 oil 1 masli 1 coffee 3 red pepper	4 tins preserved foods 43 kilos vegetables and fruits 6 melons 20 pieces taamia
Kantara East ... ..	1 cheese 2 vegetable masli 1 aerated water 1 masli 2 flour 1 bread 2 red pepper 1 coffee 1 starch 7 milk	Wone
Hurghada ... ..	1 flour	Wone

TABLE No. 36.—MUNICIPAL AND VILLAGE COUNCILS ACTIVITIES.

Locality	Activities
Quseir ... ..	Village council employs 3 scavengers for general sanitation in conjunction with scavengers of the P.H.O.
Arish ... ..	Municipal council does not assist in sanitation. All work is done by scavengers of the P.H.O.
Kharga oases ... ..	ditto
Amria ... ..	Village council supervises sanitation with the assistance of scavengers of the P.H.O..
Siwa ... ..	ditto
Matrouh ... ..	Municipal council does not assist in sanitation. All work is done by scavengers of the P.H.O.



TABLE No. 37.—CEMETERIES

Locality	No. of Cemeteries approved
Quseir ... ..	1
Hammam ... ..	1
Wadi el Natroun ... ..	4
Safaga ... ..	4
Arish ... ..	1
Kharga oases ... ..	7
Amria ... ..	1
Kantara East ... ..	5
Tor ... ..	3
Hurghada ... ..	3
Dakhla oases ... ..	19
Siwa ... ..	7
Baharia oases ... ..	7
Mersa Matrouh ... ..	2
<b>TOTAL ... ..</b>	<b>65</b>

TABLE No. 38.—UNHEALTHY ESTABLISHMENTS

Locality	Establishments licensed during this year and the year before	Total licensed establishments.
Sidi Barrani ... ..	1	13
Dabaa ... ..	8	81
Arish ... ..	209	209
Kharga oases ... ..	14	131
Amria ... ..	11	68
Kantara East ... ..	85	74
Tor ... ..	2	16
Hurghada ... ..	12	21
Baharia oases ... ..	—	1
<b>TOTAL ... ..</b>	<b>342</b>	<b>614</b>

TABLE No. 39.—SLAUGHTER-HOUSES

Locality	Slaughter-houses	Slaughter outposts
Sallum ... ..	—	—
Sidi Barrani ... ..	1	demolished during the war and has not been repaired
Quseir ... ..	1	—
Hammam ... ..	—	1
Dabaa ... ..	—	—
Wadi el Natroun... ..	—	1
Safaga ... ..	—	2
Arish ... ..	1	—
Kharga oases... ..	1	—
Amria ... ..	—	1
Kantara East ... ..	—	2
Tor ... ..	—	1
Hurghada ... ..	—	2
Abu Zenema ... ..	—	—
Dakhla oases ... ..	—	13
Siwa ... ..	1	—
Baharia oases... ..	1	2
Mersa Matrouh ... ..	1	—
<b>TOTAL ... ..</b>	<b>7</b>	<b>25</b>

TABLE NO. 40.—MEDICO LEGAL CASES

Locality	Slight Cases		Serious Cases		Fatal Cases		TOTAL	
	Accidental	Criminal	Acc.	Crim.	Acc.	Crim.	Acc.	Crim.
Sollum ... ..	—	—	—	—	—	—	—	—
Sidi Barrani ... ..	—	—	—	—	—	—	—	—
Quseir ... ..	245	—	5	—	3	—	235	—
Hammam ... ..	20	—	6	—	1	1	27	1
Dabaa ... ..	10	—	5	—	4	—	19	—
Wadi Natroun ... ..	112	7	—	—	—	—	112	7
Safaga ... ..	17	—	8	—	—	—	25	—
Arish ... ..	23	120	—	10	8	7	31	137
Kharga oases ... ..	151	—	30	—	4	—	185	—
Amria ... ..	86	—	15	—	9	2	110	2
Kantara East ... ..	222	—	—	—	—	25	222	25
Tor .. ...	—	—	—	—	—	—	—	—
Hurghada ... ..	2	—	—	—	3	—	5	—
Abu Zenema ... ..	—	—	—	—	—	—	—	—
Dakhla oases ... ..	35	12	11	5	1	—	47	17
Siwa ... ..	34	14	1	—	2	—	37	14
Baharia oases ... ..	—	—	1	—	—	—	1	—
Mersa Matrouh ... ..	80	40	55	5	20	5	155	50
<b>TOTAL ... ..</b>	<b>1,037</b>	<b>193</b>	<b>137</b>	<b>20</b>	<b>55</b>	<b>40</b>	<b>1,229</b>	<b>253</b>

TABLE NO. 41.—MEDICAL OFFICERS, MIDWIVES, SANITARY BARBERS, ETC.

Locality	Medical Officers	Dentists	Midwives	Sanitary barbers	Dayas	Remarks
Sollum ... ..	—	—	—	1	—	
Sidi Barrani ... ..	—	—	—	2	—	
Quseir ... ..	1	1	1	—	—	
Hammam ... ..	—	—	—	1	—	
Dabaa... ..	1	—	—	2	—	
Wadi Natroun ... ..	1	—	—	1	1	
Safaga... ..	1	—	—	1	—	
Arish ... ..	1	—	—	2	7	
Kharga oases ... ..	1	—	1	8	6	
Amria ... ..	1	—	—	5	—	
Kantara East ... ..	1	—	—	1	7	
Tor ... ..	1	—	—	1	—	
Hurghada ... ..	1	—	3	—	1	
Abu Zenema ... ..	1	—	—	—	—	
Dakhla oases ... ..	1	—	1	14	21	
Siwa ... ..	1	—	1	3	—	
Baharia oases ... ..	—	—	—	7	5	
Mersa Matrouh ... ..	1	—	1	1	—	
<b>TOTAL ... ..</b>	<b>14</b>	<b>1</b>	<b>8</b>	<b>50</b>	<b>58</b>	



TABLE No.42.— WATER SUPPLIES.

Locality	Source of Water Supply
Sollum... ..	Sea water condenser
Sidi Barrani ... ..	Underground water cisterns
Quseir ... ..	Sea water condenser
Hammam ... ..	Alexandria-Mersa Matrouh water main
Dabaa ... ..	„ „ „ „ „
Wadi El Natroun ... ..	Artesian wells without filters
Safaga... ..	Sea water condenser
Arish ... ..	Artesian wells without filters
Kharga oases ... ..	„ „ „ „
Amria ... ..	Alexandria-Mersa Matrouh water main
Kantara East ... ..	Pure water works with ten filters
Tor ... ..	Artesian well in the lazaret
Hurghada ... ..	Suez water mains conveyed in vessels
Abu Zenema ... ..	„ „ „ „ „
Dakhla oases ... ..	Artesian wells without filters
Siwa ... ..	„ „ „ „
Baharia oases ... ..	„ „ „ „
Mersa Matrouh ... ..	Alexandria water main and artesian wells

TABLE No. 43.—BIRKAS

Locality	Number of Birkas	Filled in during the year
Sollum ... ..	None	{ no birkas filled in in these localities during the year.
Sidi Barrani ... ..	„	
Quseir ... ..	„	
Hammam ... ..	„	
Dabaa ... ..	„	
Wadil Natroun ... ..	Six Birkas	
Safaga ... ..	None	
Arish ... ..	3 birkas	
Kharga oases... ..	None	
Amryia ... ..	„	
Kantara East ... ..	{ a birka formed from overflowing cisterns of houses.	
Tor ... ..		
Hurghada ... ..	None	
Abu Zenema ... ..	„	
Dakhla oases ... ..	{ temporary birkas formed from rice cultivation	
Siwa ... ..		
Baharia oases ... ..	89 birkas	
Mersa Matrouh ... ..	None	

TABLE No. 44. — HOSPITALS.

Locality	No. of Hospitals		No. of beds	No. of Patients		No. of Medical Officers
	State	Private		Out-pts	In-pts	
Sollum ... ..	1	—	—	—	—	—
Sidi Barrani ... ..	1	—	—	—	—	—
Quseir ... ..	1	1	34	6,035	2,082	2
Hammam ... ..	—	—	—	—	—	—
Dabaa ... ..	—	—	—	—	—	1
Wadi El Natroun...	—	—	—	—	—	1
Safaga ... ..	—	2	20	5,441	71	1
Arish ... ..	1	—	20	38,132	147	1
Kharga oases...	1	—	18	21,726	221	1
Amria ... ..	1	—	12	7,779	36	1
Kantara East ... ..	—	—	—	—	—	1
Tor ... ..	—	—	—	—	—	1
Hurghada ... ..	—	2	52	19,000	230	3
Abu Zenema ... ..	—	1	10	—	—	1
Dakhla oases...	1	—	16	2,851	109	1
Siwa ... ..	1	—	21	1,963	3	1
Baharia oases ... ..	1	—	8	165	—	—
Mersa Matrouh ... ..	1	—	12	16,573	180	1
<b>TOTAL ... ..</b>	<b>10</b>	<b>6</b>	<b>223</b>	<b>119,665</b>	<b>3,079</b>	<b>17</b>

TABLE No. 45.— GENERAL VACCINATION.

Locality	Against typhoid	Against plague	Against diphtheria	Against cholera
Sollum... ..	—	—	—	—
Sidi Barrani ... ..	47	—	—	47
Quseir ... ..	1	—	10	1
Hammam ... ..	9	—	—	9
Dabaa ... ..	13	—	—	13
Wadi El Natroun ... ..	—	—	8	—
Safaga ... ..	33	—	34	1
Arish ... ..	10,542	—	13	28
Kharga ... ..	3,990	—	1,085	2
Amria ... ..	78	—	27	15
Kantara East ... ..	195	—	193	40
Tor ... ..	—	—	17	—
Hurghada ... ..	—	—	182	20
Abu Zenema ... ..	—	—	—	—
Dakhla oases ... ..	81	—	25	4
Siwa ... ..	6	—	—	6
Baharia oases ... ..	10	—	—	10
Mersa Matrouh ... ..	87	—	265	—
<b>TOTAL ... ..</b>	<b>15,092</b>	<b>—</b>	<b>1,859</b>	<b>196</b>



TABLE NO. 46.—PUBLIC HEALTH OFFICES PROVIDED WITH DISPENSARIES.

Locality	Health Offices with Dispensaries	Patients treated free of charge	Remarks
Sollum ... ..	—	—	
Sidi Barrani ... ..	1	1,690	A hospital exists
Quseir ... ..	—	—	
Hammam ... ..	1	5,232	
Dabaa ... ..	1	1,363	
Wadi el Natroun ... ..	1	8,275	
Safaga ... ..	—	—	" "
Arish ... ..	—	—	" "
Kharga ... ..	—	—	
Amria ... ..	—	—	
Kantara East... ..	1	17,226	" "
Tor ... ..	1	907	
Hurghada ... ..	1	1,090	" "
Abu Zenema ... ..	—	—	" "
Dakhla Oases ... ..	—	—	" "
Siwa ... ..	—	—	" "
Baharia Oases ... ..	—	—	" "
Mersa Matrouh ... ..	—	—	" "
<b>TOTAL ... ..</b>	<b>7</b>	<b>34,783</b>	

## Chapter IV.—Nutrition.

### Annual Report of the Permanent Nutrition Committee and the Nutrition Section

#### I.—Analysis of some Egyptian Foods :

TABLE NO. 47.

Foodstuffs	Protein	Fat	Carbohy- drates	Moisture	Fibre	Ash
Sweet potatoes, raw, red ... ..	0·34	0·365	19·66	73·65	5·4	0·585
„ „ white ... ..	0·32	0·279	27·3	69·6	1·6	0·509
„ „ boiled, red ... ..	0·33	0·22	18·68	74·85	5·3	0·61
„ „ „ white ... ..	0·31	0·216	25·13	71·97	1·55	0·51
„ „ roasted, red ... ..	0·43	0·175	22·48	70·85	5·43	0·625
„ „ „ white ... ..	0·42	0·11	30·26	66·99	1·64	0·57
Nuts ... ..	23·5	51·5	11·71	5·21	5·6	1·68
Melon seeds, brown ... ..	34·2	48·5	8·81	2·7	3·19	—
Peanuts, native ... ..	23·9	41·65	26·18	—	—	—
Grapes, red, melouki ... ..	0·39	—	13·63	81·85	4·2	0·434
Pomegranates, Manfalouti ... ..	1·27	Traces	12·39	82·52	3·39	0·42
Green beans, native ... ..	13·6	„	1·9	83·05	0·8	0·59
„ „ foreign ... ..	5·2	„	12·7	79·9	1·5	0·67

#### II.—Dietary survey on night blindness in Siwa Oasis.

Last year, it came to the notice of the Ministry that night blindness was prevalent in Siwa Oasis following the appearance of a number of cases of Vitamin A deficiency. A unit of the nutrition section was delegated to investigate and carry out a clinical and dietary survey of the Oasis.

Here below are the results] of the medical survey which was conducted on two stages :

A Commission headed by Porf. Ali Hassan, Technical Consultant of the Permanent Nutrition Committee, visited the Oasis about the middle of April and drew up a report on its findings. Following the report, a unit of the Nutrition Section was sent to the Oasis to conduct a comprehensive investigation and to treat the cases of night blindness. The unit was provided with a large quantity of Vitamin A. The results of the medical investigation are given hereafter :

##### 1.—Night Blindness.

This disease was the primary object of the investigation. Clinical] and medical examination by means of the adaptometer carried out during April established the presence of certain cases. These were provided with Vitamin A. It was observed that during this season, the oasis lacked vegetables and fruits, the main source of Vitamin A. During May, the disease disappeared following the appearance of vegetables and fruits. A very high ratio of ophthalmic infection almost, 100<sup>o</sup>/<sub>o</sub>, was also observed.



## 2.—Pellagra and Riboflavine Deficiency:

Two cases of Pellagra and four cases of riboflavine deficiency were encountered.

## 3.—Vitamin D and Calcium Deficiency:

Three pupils of the compulsory school demonstrated traces of old rickets. The condition of the teeth is illustrated by the following table:

Pupils:	88%	good	—	8%	fair	—	7%	poor.
Girls:	86%	„	—	7%	„	—	7%	„
Men:	53%	„	—	8%	„	—	39%	„

## Haemoglobin:

A high haemoglobin content in the blood was observed as shown by the following table:—

TABLE No. 48

	Haemoglobin.	Per centage of Cases.
Men ... ..	60-90 %	77.5 %
	90-100 %	10 %
Girls ... ..	60-90 %	78 %
	90-100 %	13 %

This high haemoglobin content is due to the absence of parasitic diseases.

## III.—Nutrition Survey of cases of chafing of face and hands at Sindibis area:

A survey of the pupils of the compulsory school, both boys and girls, proved that about 39% of the pupils suffered from fissured lips and about 49% from chapped hands and face.

No symptoms of rickets were encountered, and the condition of the teeth was: 75% good, 21% fair, and 4% poor.

Hoemoglobin content was 60—90% in 74 cases, 70—79% in 28 cases and 80% in one case.

Examination for parasites revealed that 71.7% had ascaris, 67.3% bilharzia and 12.8 had ancylostoma.

## IV.—During the year, the Nutrition Section had proposed daily diets for certain categories, namely students of the Cadet and Constabulary school of the Police College. The following is the daily diet proposed:—

TABLE No. 49

Cadets		Soldiers day	
	grams		grams
<b>Breakfast:</b>			
Bread (special) ... ..	260	Bread (ordinary) ... ..	936
Tea ... ..	1.5	Beans, stewed ( <i>medammes</i> ) ... ..	85
Sugar ... ..	25	Lentils ... ..	63
Milk ... ..	50	Cotton seed oil ... ..	12
Jam ... ..	47	Beef ... ..	150
Cheese, white ... ..	47	Vegetables, fresh ... ..	400
<b>Lunch and dinner:</b>		Rice ... ..	80
Bread (Special) ... ..	520	Masli ... ..	20
Veal ... ..	234	Milk ... ..	150
Vegetables, fresh ... ..	468	Sugar (for morning milk) ... ..	25
Rice ... ..	171	„ (for pudding) ... ..	40
Masli ... ..	31	Starch „ „ ... ..	30
Shreaded Wheat ( <i>Konafa</i> ) ... ..	156		
Sugar (pudding) ... ..	60		
Masli ... ..	100		

V.—Meals served by public kitchens in Cairo and the provinces as well as those in orphanages have also been modified by the Section.

*The Permanent Nutrition Committee :*

The Permanent Nutrition Committee undertakes research into the State of Nutrition in Egypt and takes measures to improve its standard.

The attention of the Committee is directed specially to the following problems :

1. The investigation of the causes of malnutrition, the diseases associated with modern civilisation and the causes of poor physique,
2. Determining the quantities of foods containing proteins, fats, sugar, and starches, vitamins and salts that are sufficient to keep the body in a state of equilibrium, and to maintain health under all conditions; taking into consideration foods produced in the country.
3. Study of the vitamins with special reference to their relation to rickets, pellagra, and other diseases. While searching for the causes of these diseases, their incidence and means of their prevention must be studied.
4. Nutrition surveys of groups, such as, school children, army, navy and air force, asylums etc., may be undertaken in the light of modern experience and knowledge.
5. Economic study of foodstuffs with the object of recommending adequate diets suitable for different incomes.
6. Studying the prices of essential foods and taking measures to make them available to all consumers.
7. Statistical survey of foods, with special attention to meats, ( including poultry and fish), milk and milk products, eggs, cereals, etc., oils, fruits etc.

*Composition of the Permanent Nutrition Committee :*

The under Secretary of State	Chairman
Prof Ali Hassan, Ex-Dean of Faculty of Medicine,	Technical Consultant.
Dr. Ahmed Abdel Nabi, D.G., Technical and Administrative Inspection Dept.	Technical Secretary
Prof. W. H. Wilson, Emeritus Professor of Physiology, Faculty of Medicine.	
Dr. Mohamed-Abdou Abbassi, Professor of Public Health and Preventive Medicine, Farouk University,	
Dr. Ismail Mortada, Ex Medical Diseases Specialist,	
Under Secretary of State for Industrial Affairs, Ministry of Commerce and Industry	
Representative of Egyptian Army Medical Services,	
Director General, Prisons Department's Medical Services	
„ „ Department of Social Hygiene, Ministry of Public Health,	
„ „ „ of School Hygiene, Ministry of Education,	
Senior Chemist, ( Chemical Section ) Ministry of Agriculture,	
Director, Chemical Section, Public Health Laboratories Dept.	
Professor of Bio-chemistry, Faculty of Medicine,	
Director, Food Control Section, M. P. H.	
„ Nutrition Section, „	
A Veterinarian for animal wealth, Ministry of Agriculture,	
Lecturer of Nutrition of the Public Health Section, Faculty of Medicine.	
An Agriculturist for agricultural crops, Ministry of Agriculture,	
A representative of the Ministry of Social Affairs,	



*Composition and Attributions of the Nutrition Section :*

1. The Nutrition Section consists of two nutrition research units, each under the direction of a medical officer. The staff of each unit include a food inspector, two social workers and a clerk, besides the junior staff.

2. The Biochemical Laboratory is run by three chemists.

A Bacteriological laboratory is in course of construction.

The Units undertake food researches in different localities.

The Medical Officer undertakes the medical examination in the locality.

While the biochemical laboratory undertakes the analysis of foodstuffs and, where necessary, examine blood specimens .

A third unit was established in 1950 to assist the other two units. This unit is run by :

A Medical Officer, a Chemist, a Statistician, a Food Inspector, a Social Worker and a Clerk.

## Chapter V.—Permits

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### *Applications for new licences :*

The number of applications for new licences for dangerous, unhealthy and inconvenient establishments of the 1st Class received during the year under review was 2,658 as against 1,825 in the preceding year.

### *Licences issued by the Ministry :*

A total of 1,302 licences for establishments of the 1st Class were issued during the year, as against 1,018 in 1949.

### *Ministerial Arrêtés :*

Three ministerial arrêtés adding new establishments to or modifying the schedules were issued during the year as against two in the previous year.

These details indicate a steady increase in the activities of the Department as a result of the industrial and commercial expansion during and following war years,



## Chapter VI.—Rural Health

### *Objectives of Rural Health :*

1. To raise the environmental sanitary conditions in rural Egypt. This covers : water supply; public laundries and baths ; food markets and slaughter houses ; food control ; cleanliness of the village ; fly control ; improvement of housing conditions through the provision of latrines, lime washing ; improvement of lighting and ventilation and cleanliness of the dwellings.

2. Control of communicable diseases by small pox vaccination of infants ; diphtheria inoculation of children ; vaccination against other diseases e.g. typhoid when required ; detection and control of infectious diseases.

3. To provide medical treatment, especially for parasitic diseases, eye diseases , diseases of mal nutrition , and other emergency and casualty cases.

4. To provide social health services in rural areas including maternity and child welfare , venereal diseases control, and health education.

These services are organised and administered by the various divisions of the rural health department as follows :

### *I. Division of Rural Health Centres :*

This Division is concerned with the administration and organisation of rural health centres, which have accomplished a great deal towards improvement of health.

This is demonstrated by the fall in the general and infantile death rates from 20 per 1,000 of population and 194 per 1,000 births in 1949 to 14 and 139 respectively in 1950.

An increase is also apparent in out-patient and in-patient attendances and in activities of maternity and child welfare services. Besides, a mass treatment campaign for parasitic diseases has been organised in Qaliubia Province.

The accompanying statistical tables show the activities of these centres during the year 1950.

The responsibilities of the department increase year by year following the steady provision of more rural health centres and in-patient sections and the consequent increase of the population thus served, as indicated by the following Table No. 50

TABLE No. 50

Year	Population served by Health Centres	Number of operating centres	Number of parasitic dis. Sections	Number of M. C. W. Sections	Number of inpatient Sections	Number of new and old out-patients
1945 ... ..	684,343	85	85	69	12	416,195
1946 ... ..	1,141,441	103	103	81	27	490,117
1947 ... ..	2,132,202	115	115	92	71	474,481
1948 ... ..	2,610,928	129	129	101	84	587,819
1949 ... ..	3,028,837	157	157	110	88	836,119
1950 ... ..	4,165,399	178	178	117	98	1,258,999

Although the number of health centres has doubled during the 5 years, the number of directors, assistant directors and inspectors has remained unchanged.



*Preventive Medical Services :*

The following table gives a comparison of infantile births and deaths during the last 3 years :

TABLE NO. 51

Year	Population served by H. Centres	Number of Births	Number of Deaths	Number of infantile deaths	Rates		
					Birth rate per 1000 pop.	Death rate per 1000 pop.	Infant mortality rate per 1000 births
1948 ... ..	2,610,928	110,552	50,960	28,647	42	20	259
1949 ... ..	3,028,837	118,091	56,933	30,322	39	20	256
1950 ... ..	4,165,399	154,597	58,561	21,216	37	14	139

This shows the continuous drop in the death rate and infant mortality rate year after year in spite of the improvement in the accuracy of reporting and notification of deaths due to the improved supervision of birth and death registration.

*Food Control.*

During the year 1950, 3,761 food samples were taken for examination. Out of these 120 samples i.e. 3% were adulterated.

*Treatment Services :*

The following table No. 52 shows that not only the number of population served by these centres is steadily increasing as a result of the increasing number of centres, but also the average attendance per centre.

TABLE NO. 52

Year	Number of new Outpatients	Number of new ophthalmic cases	Average per centre	
			New O. Ps. attendance	New Ophthalmic cases
1948 ... ..	587,819	72,066	4557	555
1949 ... ..	836,119	106,270	5325	675
1950 ... ..	1,258,999	130,047	7045	731

*Parasitic Diseases :*

The following table No. 53 shows the ratio of out-patients examined for parasitic infections :

TABLE NO. 53

Year	Number of new O. Ps.	Out patients examined for Parasitic Infections	
		Number	Rate per cent
1948 ... ..	587,891	277,285	47 %
1949 ... ..	836,119	419,463	50 %
1950 ... ..	1,258,999	742,120	59 %

This shows that 59% of the out-patients were examined in 1950 for parasitic infections as compared with 47% and 50% in 1948 and 1949.

It is hoped that this increase will be maintained until all out-patients are so examined.



The following table No. 54 shows the examination and treatment of Bilharzia infections,

TABLE No. 54

Year	Number examined for Bilharzia	Positive Cases		Number started Treatment	Number of Anti Bilharzia Injections	Average Number of Injections per Person
		Number	Rate per ceet			
1948... ..	277,285	137,034	60.3 %	102,806	716,897	7
1949... ..	419,463	237,372	56.8 %	171,018	1,622,767	9
1950... ..	742,120	396,973	53.5 %	249,575	2,249,162	9

The ratio of positive bilharzia cases amongst out-patients examined shows a steady decline. It was 53% in 1950 as against 56% in 1949 and 60% in 1948. This is associated with an improvement in attendance for treatment as indicated by the average number of injections per patient which was 9 in 1950 as against 7 in 1948.

*Maternal and Child Health Services :*

The following Table No. 55 compares the prenatal activities during tho last 3 years.

TABLE No. 55

Year	New Pregnants		Pregnants' Visits to Centres		Home Visits to Pregnants	
	Total Number	Average per centre	Total Number	Average visits per case	Total Number	Average No. per case
1948... ..	30,738	304	106,110	3	40,036	1.3
1949... ..	38,055	346	164,051	4.5	69,189	2
1950... ..	44,061	376	221,816	5	86,656	2

This shows a steady improvement in attendance to pregnant both at the centres and their homes. The average visit per pregnant was 3 in 1948 ; and 5 in 1950.

The following Table No. 56 shows the delivery and post-natal services :

TABLE No. 56

Year	Number of M.C.H. units	Number of deliveries		Number of post-natal visits	
		Total No.	Average per unit	Total No.	Average per delivery
1948	101	31,812	315	174,639	5.5
1949	110	43,404	395	229,606	5.5
1950	117	46,607	400	271,707	6

This shows an increase in the number of deliveries per one health centre from 315 cases in 1948 to 395 in 1949 and 400 in 1950.

*II.—Division of Rural Health Research :*

In addition to the services of the health centres described above, the department considers that local conditions in rural Egypt affect very much the kind of services most suitable for introduction. Therefore a program of research in environmental sanitation and rural health is carried out with the following objectives :

1. To assess the kind and extent of health problems in Rural Egypt.
2. To find out the best solutions for these problems consistent with local economic and social conditions, and to provide such public health, preventive and curative services as will meet the health requirements in the area and agree with local conditions and customs of the people.
3. To evaluate the cost and results of such services and to find out whether the expenses would be within the economic abilities of the country when the program is generalised.
4. To develop the program from the experimental to the final phase, namely the training of personnel in the application of the principles learned to other parts of the country.

### *The Program :*

The program was started in 1947 under the joint administration and financing of the Egyptian Ministry of Public Health (Rural Health Department) and the Rockefeller Foundation ;

The Sindibis area in Qaliubia province had been chosen for the purpose because a new health centre was being established at the time and because of ease of transportation and its proximity to Cairo (30 kilometres north of Cairo).

The area involves 5 villages :

Sindibis...	...	...	with a population of	4,835
Quaranfil	...	...	„ „ „	4,837
El Baradaa	...	...	„ „ „	5,423
Aghour el Sughra	„	„	„	4,432
Aghour el Kubra...	„	„	„	9,403
TOTAL ... ..				<u>28,420</u>

The first step was to mark every house in the village with serial numbers, oil painted on the doors. A cadastral map was made for each village showing the houses, their numbers and other important landmarks of the village. The village was divided into zones for purposes of studying the services and their results.

The next step started in 1948 by conducting a comprehensive sanitary Survey to evaluate the existing sanitary conditions in the villages and the houses and compare them with the minimal sanitary requirements as judged by experience in other countries. A scale was made of the different items which totalled 106.5. The average score for the villages was 17 which means that they have only 1/7 of the minimal sanitary requirements.

Analytical study of the data obtained showed that the basic sanitary needs in these villages were :

1. The establishment of safe and practical water supplies which need be accessible, inexpensive and consistent with local conditions.
2. Establishment of adequate means for disposal of excreta and the installation of sanitary latrines compatible with local conditions, customs of the people and economic standards.
3. The control of flies which are to a large extent the direct cause of the high infantile mortality and the high incidence of ophthalmias.

The 3rd step was to conduct a complete family survey including data about every person in the family to find out the incidence of the important diseases and the cultural, economic, nutritional and social status of these families.



## SANITARY SERVICES UNDER THE PROGRAM

### 1.—*Water* :

In villages, it would not be sufficient to establish sanitary water plants only. They should be practicable to insure being used. They should suit local conditions and be inexpensive. Taking these factors into consideration, it has been decided to provide sanitary hand pumps - one for every fifty houses i.e. about 200 persons. These pumps are located in the streets at convenient spots, easily accessible to the houses and as much as possible on the way from these houses to the canals. The wells which are drilled about 60 feet deep in the ground penetrate the impermeable layer to reach a deep level of safe water and a satisfactory yield. At ground level, the well is protected by a concrete platform all round. For drainage of waste water, underground earthenware pipes and a concrete basin or reservoir are provided.

A well costs on the average L.E. 16.899, and for every village a man is appointed to repair and maintain these wells.

Water samples are taken periodically from each well (once every 2 weeks) for bacteriological analysis, and chlorination is used.

In 1950, 145 such wells were installed in the different villages of the area except Aghour el Kubra which was left for control.

### 2.—*Latrines* :

The bore hole type or the Rockefeller Latrine is the most suitable and least expensive. One such latrine is made in every house deprived of a sanitary latrine.

It is made by an auger and it is 19 ft. deep and 16 inches in diameter. On the top a concrete collar and a slab are put : and then the people are instructed to make the fence and the door. Such a latrine costs P.T. 78.5 including labour and equipment.

In 1950, 1411 latrines were built in two villages : Sindibis and El Baradaa.

### 3.—*Fly Control* :

Fly counting by the grid method is done in each village once every week. The grid is 3 feet square. The counting is done in fixed grid stations in the villages and the results are charted. In this way the effect of the different insecticides can be evaluated and the time for application of dusting or spraying determined.

At first, DDT was used ; then gammexane, and lastly chlordane in the form of a wettable powder, used for spraying in the selected villages whenever the fly count index rises. This chlordane powder contains 30% of pure chlordane and is used in 2.5% concentration, to spray favourable fly breeding places i.e. stables, manure heaps and latrines. This has been done almost 4 times during the year and it cost P.T. 18.9 per house per year . As a result, the fly population has been reduced by 96%.

In order to evaluate the effect of the separate items of the program, and to compare the results, certain villages were chosen for the different services and others left for control, as follows :

TABLE No. 57

Village	Water	Latrines	Refuse & Sweeping	Insecticides	Fly count
Sindibis ... ..	+	+	+	+	+
Quaranfil ... ..	+	+	+	+	+
El Baradaa ... ..	+	+	+	—	+
Aghour el Sughra	+	—	—	+	+
Aghour el Kubra	—	—	—	—	+

4.—*Refuse collection and disposal :*

In Sindbis, Quaranfil and El Baradaa villages the streets are swept twice weekly i.e. 1/3 of the village is swept daily. The refuse collected is burnt and used to fill in the ponds and marshes in the village.

This service costs L.E. 27 to 30 per village per month.

5.—*Lime-Washing :*

The village houses are lime washed to improve lighting and cleanliness. It costs P.T. 21.9 per house including labour, material and transportation. If we deduct labour wages, the cost of white washing would be P.T. 6 only.

*Reorganization of the services of Sindibis Health Centre :*

The services of the health centre have been reorganised and coordinated which, with the training of personnel, resulted in a great increase in the activities of this health centre during the last 3 years, as can be seen from the following table :

TABLE No. 58

Out patient division	1948	1949	1950
New out patients ... ..	7,485	10,874	24,559
Cases examined for parasitic infections ... ..	3,150	7,760	15,539
Antibilharzial injections given ... ..	16,152	19,431	49,446
Anthelmintic doses given ... ..	308	1,160	6,924
<b>In-patient division :</b>			
patients admitted ... ..	47	80	95
<b>Maternity and Child Health Services :</b>			
New pregnant... ..	192	488	944
Old pregnant... ..	395	1,339	2,585
Deliveries ... ..	137	342	568
Post-natal visits to houses ... ..	559	1,494	3,457
Total other house visits... ..	224	933	2,136
Babies visiting the centre ... ..	672	3,797	4,129
<b>V.D. Services :</b>			
Blood samples for W.R. ... ..	261	541	1,036
Anti syphilis injections ... ..	8	232	787

*Endemic Diseases :*

All the villages of the area—except Aghour el Kubra—have been surveyed. Census tables were prepared showing the names, ages and sex of all the inhabitants of every house. The nurse collects urine and stool samples from every house, brings them to the health centre for laboratory examination. Positive cases were treated locally in their village by a light mobile treatment unit, saving them the trouble of transportation. This lead to a great improvement in the rate of regular attendance for treatment. About 80% of positives attended regularly the anti-bilharzial course of injections untill completely cured.



The following is the incidence of the various parasitic infections in the 4 villages as a result of the survey :

TABLE NO. 59

	Sindibis	Quaranfil	El Baradaa	Aghour el Sughra
Urine :				
Schist. hematobium... ..	31%	43.7%	52.8%	47.8%
„ Manson... ..	0.5	—	—	—
Stools :				
Schist. hematobium... ..	1	1	1.2	1
„ Manson... ..	11	0.5	0.2	0.3
Ascaris ... ..	62	87	68.8	84.4
Ancylostoma ... ..	3.5	8.8	5.4	16.7
Other parasites ... ..	6.1	8.5	7.7	9.6

*N.B.*—This area is now free from Planorbis snails, the intermediate host of Sch. mansoni.

#### *Tuberculosis :*

AT.B. program in Sindibis village has been carried out through the cooperation of this division and the T.B. Control Section of the Ministry of Health. The majority of the village population have been tuberculin-tested ; the negatives were B.C.G. vaccinated. Mass radiography was done by miniature films by the mobile X-Ray unit. Positive and suspicious cases were sent to Cairo for further investigation by big films and sputum examination. This survey resulted in the discovery of 52 cases. Of these : 32 were definitely positive and most of them were hospitalized and the remaining few are on the waiting list. The rest of the cases (52 - 32=20) are still under observation and follow-up by repeated X-Ray and sputum examinations.

Visiting nurses pay home visits to instruct and follow up the cases till they get hospitalized.

Tuberculin testing has shown that 66% of the people surveyed were positive :that the rate of positives is generally higher in females than in males especially in the age-groups 0-14 years : and that 8% of infants below one year of age are positive. This high percentage at such an early age indicates an early exposure to the tubercle bacilli before they are one year old.

#### *Venereal Diseases :*

An extensive W.R. survey has been carried out for both pregnant and the population in general. The average incidence of W.R. positives was 7% : it rises to 9.9% in males 15—45 years, which is a high percentage.

The positive cases are treated and followed-up, together with their contacts, by the visiting nurses to ensure their regular attendance for examination and treatment.

#### *Visiting Nurses :*

A visiting nursing service was established in this area. One visiting nurse was assigned to every village (except AghourKubra). She pays home visits, gets acquainted with the members of the family, gains their confidence, and instructs them in public health and health education in a simple and practical way. She records all this in a special family record. If she finds a sick person she makes out for him a personal record, with data about history of illness, symptoms, complaint, temperature etc. Then she refers him

to the health centre by a forwarding slip, signed by her. Then she visits the family repeatedly to follow up the patient and check on his condition, to see if he is taking the treatment and whether he is improving.

Under this system, it was possible to bring cases of syphilis under treatment, to follow up cases of tuberculosis till they were hospitalized and to observe contacts etc.

The nurse pays these house visits daily from early morning till 11 o'clock. After this i.e (from 11 a.m. to 1 p.m.), she has a nursing office in the village where she carries on such simple services as small-pox vaccinations, eye wash, eye drops or paints for ophthalmias (according to the doctor's recommendations), and takes blood samples for examination instead of forwarding the people to the health centre.

The object of this program is to provide simple medical services to the villagers in their villages saving them the trouble of transportation and relieving the health centre to enable the doctor to devote sufficient time for complete examination and treatment of the patients.

### *Vital Statistics :*

The program aims at organising registration and reporting with a view to the collection of accurate health statistics. Besides, a statistical study of infantile deaths is conducted to obtain correct information about ratios of infantile mortality at this early age.

It is noteworthy that the infant mortality rate in Sindibis village has fallen from 326 per thousand births in 1948 to 105 in 1950. This improvement varies in the various villages with the extent of services of fly control, insecticides and medical care etc.

The general death rate has also fallen in Sindibis village from 32 per thousand population in 1948 to 18 in 1950. Again the degree of improvement varies according to the accuracy of reporting and registration of deaths which reveals cases that would otherwise have been concealed.

### *III. Division of Sanitary Engineering :*

This division was set up in March 1950.

*Objectives :* To improve environmental health conditions in the Egyptian village by :-

1. The introduction of potable water supplies into the villages. At present the department of village affairs installs water plants outside the villages in order to secure a safe site. This division proposes to lay down networks of piping and taps inside the villages so as to facilitate the use of potable water. Until this is accomplished, the division is installing sanitary hand pumps inside the villages.

2. The establishment of inexpensive sanitary latrines inside the houses.

3. Cleanliness of the village, disposal of refuse and manure heaps in a sanitary way.

4. Improvement of housing by such simple methods as : white washing to improve lighting ; the increase of window area to improve ventilation ; the removal of fuel to a separate place to diminish fire risks etc.

5. The control of disease transmitting insects e.g. flies and lice by insecticides.

6. Food control by the establishment of simple slaughter houses and food markets.

7. Cooperation with other agencies interested in the social and sanitary improvement of villages such as : social centres, village councils and municipalities.

#### *A. Activities accomplished in 1950 (March through December) :*

In the budget of the Rural Health Department for the fiscal year 1950/51, L.E. 10,000 were allocated for the improvement of environmental sanitation by a program that is practical, easily applicable and suitable to local conditions of the villages and villagers.



The following villages have been chosen.

Village	Population (approximate estimation for 1950)
Kom Bira ... ..	2,000
Kafr Hakim ... ..	1,700
El Mansouriah ... ..	11,500
Nekla ... ..	3,500
Berkash ... ..	4,000
<b>TOTAL ... ..</b>	<b>28,000</b>

In choosing these villages in Giza province near Cairo, consideration was given to their ease of access and transportation which facilitate supervision. Besides, this area has only recently been provided with medical services and is still in great need of environmental sanitary services.

Since the budget was only approved on August 19th, 1950, with 3 months remaining before the end of the year, only the following were accomplished :

(1) Renting premises for office and store in each of Nekla and Kom Bira villages.

(2) Survey and preparing of 1/1000 scale maps showing the important landmarks for Kom Bira, Kafr Hakim, Nekla and Birkash villages.

(3) A complete sanitary survey of all the houses was made and the sanitary standard in each village was rated so that evaluation of the degree of improvement of these standards could be possible.

The following is a summary of the analysis of the data for Kom Bira village : it gives a general idea of the sanitary condition of the Egyptian village :

(a) The average sanitary rating for houses in Kom Bira was 34.7 %. 70 % is the minimal score for hygienic housing.

(b) 5% of the houses have a private hand pump for the supply of water. The remaining houses get their potable water from any available source.

This shows that such a village is in great need of safe water sources and also sanitary latrines in the houses.

(4) Cleanliness of the village and establishment of latrines :

The following have been provided in 1950 :

Village	Scavenging gangs	Latrines
Kom Bira ... ..	1 gang	161 latrines
Kafr Hakim ... ..	1 „	—
El Mansouriah ... ..	2 „	—
Nekla ... ..	1 „	—
Birkash ... ..	1 „	—

B. In the budgets of Provincial Municipal Councils, L.E. 11,000 have been allocated especially for the cleanliness of villages.

Certain villages have been selected in each province for such a purpose. These villages have been chosen according to their need for improvement, to their proximity to the seat of the province for easy supervision by the provincial health administration, and the presence of a health or a social centre to facilitate local supervision of the services.

The following is a list of the selected villages :

TABLE No. 60

Province	Village	Population
Behera ... ..	Lakana ... ..	3.000
Sharkia ... ..	Shobak Basta ...	3.275
Dakahlia ... ..	Mit El-Faramawy	3.016
Gharbia ... ..	Beltag ... ..	4.648
Fouadia ... ..	El Hamra ...	4.173
Qaliubia ... ..	Tahanob ... ..	5.633
Menoufia ... ..	El-Ghanamiah...	1.109
Giza ... ..	El Mansouriah	10.729
Fayoum ... ..	Matar Tares ...	9.774
Beni Suef ... ..	Shater Zadah ...	2.136
Minia ... ..	Zohrah ... ..	3.286
Assiut ... ..	El Atawlah ...	3.500
Gerga ... ..	El Kitkatah ...	3.152
Qena ... ..	El Dair ... ..	2.250
Aswan ... ..	El Sibayah ...	17.389

All the rural health centres except Assiut, Gerga, Qena and Aswan have been supplied with the necessary equipment for the work. Because of the late approval of the budget, the work was not started during the year.

#### *IV. Sanitation Division :*

##### *Responsibilities :*

1. Cemeteries.
2. Problems for study by the water Commission.
3. Supervision of refuse disposal systems and the control of mosquito-and fly breeding places.
4. Fencing and protection of waste lands in cities.
5. Summer and Winter resorts.
6. Sanitary survey and licencing of farms (Ezbas).
7. Public Sewage systems.
8. Enactment and enforcement of sanitary laws.
9. Supervision and control of filtered water plants.
10. Supervision of water systems in mosques.
11. Administration and operation of public baths in villages.
12. Control of public slaughter houses and enforcement of laws relating to them.
13. Application of the Rural Health Reform law to ponds and marshes by filling them in either by the inhabitants or by the department of village affairs.



*Activities accomplished in 1950.*

1. *Cemeteries :*

(a) *New cemeteries :*

38 cemeteries have been established or expanded.

156 other cemeteries : steps are being taken for their establishment or expansion

(b) *Disused old cemeteries :*

123 disused cemeteries have been evacuated and reclaimed.

346 other disused cemeteries are being substituted and evacuated.

(c) *Private tombs :*

Number of licences issued ... .. 8.

Number of tombs under licensing 17.

ADMINISTRATION AND OPERATION OF PUBLIC BATHS AND LAUNDRIES  
OUTSIDE THE HEALTH CENTRES :

TABLE No. 61

Month	No. of operating baths and Laundries	No. of persons who used the baths	No. who used the Laundries
January ... ..	29	18,020	1,177
February ... ..	29	1,814	1,816
March ... ..	35	1,578	1,636
April ... ..	37	5,757	3,387
May ... ..	40	14,646	2,680
June ... ..	43	7,311	1,799
July ... ..	44	10,512	2,665
August ... ..	44	18,907	4,268
September ... ..	44	16,900	4,294
October ... ..	48	21,606	3,282
November ... ..	52	31,214	5,652
December ... ..	55	30,142	8,714

By providing these public baths and laundreis for the use of the poor, this Division has much contributed towards the preservation of public health and reduction of morbidity. During epidemics, visitors to these baths and laundries are also dusted with D.D.T. for insect control.

Finally, this Division is responsible for laying down the sanitary specifications for water supplies, sewage drainage systems and disposal of mosquito and fly breeding places particularly in rural areas.

TABLE No. 62.—PREVENTIVE SERVICES, CURATIVE SERVICES AND TREATMENT OF ENDEMIC DISEASES, MATERNAL AND CHILD WELFARE

Province	No. of Health Centres in operation	Population of Area	Births		Deaths		No. Vaccinated against Small Pox	Diphtheria			Cases of infectious diseases						Food Control			
			Total No. of Births	No. Still-Births	Infant Deaths	Total Deaths		1st. shot	2nd shot	3rd. shot	Plague	Typhus	Relapsing	Typhoid	Cholera	S. pox	Other diseases	Food Condemned (No. of times)	Fit	Adulterated
Dakhia	17	319,668	18,284	58	2,626	3,255	16,171	1,032	715	670	—	—	19	—	—	355	1,019	782	10	7
Qaliubia	11	151,812	8,114	17	1,632	3,451	5,800	1,459	873	577	—	—	17	—	—	268	781	236	10	7
Sharkia	21	194,384	12,483	76	1,563	5,029	11,267	1,731	1,503	1,249	—	—	23	—	—	272	1,191	295	7	12
Gharbia	30	600,598	25,857	53	2,826	10,161	19,728	3,174	2,300	1,800	—	1	12	—	—	413	1,488	44	12	5
Menoufia...	14	1,078,036	8,822	54	1,651	4,485	7,646	1,439	1,030	747	—	—	19	—	—	302	748	458	15	41
Behera	11	235,429	9,110	14	1,417	3,466	8,343	973	866	803	—	4	12	—	—	248	533	132	3	4
Giza	9	226,829	19,918	57	2,602	4,727	10,584	434	442	378	—	—	48	—	—	393	239	145	18	3
Fayoum	5	146,769	6,467	46	1,105	3,224	5,535	527	457	380	—	—	4	—	—	130	216	165	5	4
Beni-Suef	5	95,209	3,374	27	532	1,861	3,409	608	396	293	—	—	—	—	—	200	455	334	4	1
Minia	8	251,970	10,516	9	1,467	5,016	7,292	1,441	1,141	954	—	—	8	—	—	448	301	304	6	23
Assiut	16	249,462	10,199	9	1,540	5,060	8,902	1,096	906	747	—	—	31	—	—	6,833	251	139	1	4
Gerga	13	240,269	6,373	8	770	3,495	6,457	492	446	373	—	—	13	—	—	86	471	162	12	—
Qena	12	303,665	9,745	—	897	3,836	8,449	184	119	151	—	1	10	—	—	274	129	112	7	6
Aswan	6	71,299	3,335	1	588	1,495	2,717	286	217	126	—	—	1	—	—	31	111	57	10	10
TOTAL	178	4,165,399	152,597	429	21,216	58,561	122,300	15,376	11,411	9,188	—	6	217	—	—	10,253	7,939	3,761	126	127
RATE	—	—	37%	—	139 Per 1000	14 Per 1000	—	—	—	—	—	—	—	—	—	—	—	—	—	—



TABLE No. 62 (Contd.)

Province	Public Baths and laundries		No. of Out Patients		Ophthalmic cases		No. of Operations		Total No. of In-Patients	Endemic Diseases									
	No. using baths	No. using laundries	New	No. of old Cases	No. of new Cases	No. of old Cases	Out Patients	In-Patients		No. of Cases of Intestinal parasites				No. of Dysentery cases					
										Positive	treated with		Completed treatment	Positive	Began treatment	No. of Shots	Completed treatment		
											Carbon tetrach.	Chenopodium							
Dakahlia	18,974	1,980	135,134	206,100	9,516	32,860	3,216	85	1,066	88,019	44,143	2,675	25,837	24,507	280	270	1,860	252	
Qaliubia	85,968	14,497	153,220	47,413	21,274	6,980	1,483	72	1,338	85,668	63,081	4,696	30,717	8,002	52	48	190	30	
Sharkia	43,927	1,246	114,384	125,404	13,530	32,292	1,861	83	757	48,693	27,814	2,746	12,911	11,570	495	470	1,933	450	
Gharbia	16,332	2,450	71,794	258,402	9,548	25,551	4,305	205	1,115	114,741	69,518	4,147	35,984	21,142	453	426	1,902	368	
Menoufia	79,627	16,177	125,683	102,126	5,768	35,919	2,105	96	1,525	75,294	54,700	3,466	47,295	9,800	186	145	949	127	
Behera	23,080	1,359	161,469	116,566	7,496	15,840	1,776	72	6,237	49,843	27,111	1,830	13,914	4,115	603	493	2,786	345	
Giza	50,705	11,670	113,240	35,461	8,960	17,376	2,589	160	995	61,500	26,704	6,851	9,510	8,271	50	46	277	36	
Fayoum	—	—	35,913	20,024	5,262	17,022	292	18	138	18,895	3,214	1,355	193	590	72	65	430	42	
Beni-Suef	22,295	—	36,491	14,111	4,633	8,716	197	19	404	24,053	5,602	2,819	259	1,705	17	22	129	21	
Minia	43,639	5,238	64,218	38,832	8,333	17,567	301	25	2,371	47,420	12,236	3,919	1,546	1,666	158	109	698	134	
Assiut	17,231	4,144	130,873	11,816	14,343	23,068	278	9	58	48,168	8,613	4,256	6,050	1,955	391	260	141	316	
Gerga	26,651	18,588	78,870	93,843	7,949	18,078	278	14	253	45,574	9,223	4,261	2,461	6,722	341	309	200	305	
Qena	21,062	11,071	31,624	10,885	8,931	6,976	97	—	114	21,264	6,078	2,405	1,170	1,704	43	29	241	36	
Aswan	1,416	477	86	30,452	4,508	7,278	149	—	96	12,978	107	61	1	62	139	132	759	67	
TOTAL	450,897	88,897	1258,999	1157,435	130,047	265,523	18,927	858	16,467	742,120	358,124	45,487	187,848	101,811	3,260	2,824	12,495	2,529	
RATE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4%	—	—	—	—







## Chapter VII.—Quarantine

### Maritime Navigation

TABLE NO. 63.—QUARANTINABLE DISEASES REPORTED IN THE PORTS DURING THE YEAR 1950

Ports	Plague		Cholera		Smallpox		Typhus	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Alexandria ... ..	—	—	—	—	—	—	7	—
Port-Saïd ... ..	—	—	—	—	—	—	—	—
Suez ... ..	—	—	—	—	—	—	—	—

Other Ports :— Abu Zenema, Safaga, Hurghada, Shellal, Kantara, Ras-Ghareb, Rosetta, Abuqir, Mersa Matrouh and Sollum : Nil

### Inspection of Vessels

As provided for in Article 48 of Quarantine Regulations, all vessels arriving at Egyptian Ports must, before communication with the shore, be medically inspected.

Vessels arriving from infected ports are subjected to a detailed medical inspection (arraissement).

In the tables that follow are given :—

1. List of localities declared infected during the year by the Quarantine Authority (Table No. 64)
2. List of localities declared clean during the year by the Quarantine Authority (Table No. 65)
3. Number of vessels subjected to simple medical inspection (Table No. 66)
4. Number of vessels subjected to detailed medical inspection (Table No. 67)
5. Diseases found on vessels on their arrival at Egyptian Ports (Table No. 68)
6. Vaccinations carried out on board vessels in Egyptian ports (Table No. 69).
7. Passengers (Table No. 70)



TABLE NO. 64.—LOCALITIES DECLARED INFECTED DURING THE YEAR 1950

Date	Disease	Name of Country	Name of Locality considered as infected
<b>1950</b>			
January 11	Plague... ..	Peru ... ..	Tumbes Province.
„ 23	„ ... ..	Chile ... ..	Santiago Province.
„ 23	„ ... ..	Transval (Union of South Africa) ... ..	Roodepoort District.
March 5	Plague... ..	Union of South Africa ...	Lady Grey Municipal Area (Cape Province).
„ 5	„ ... ..	Hawaii ... ..	Honokaa & Kapulena Areas.
„ 8	Smallpox ... ..	Saudi Arabia ... ..	Whole Territory.
„ 19	„ ... ..	Indonesia ... ..	Medan.
„ 27	Plague... ..	Transval (Union of South Africa) ... ..	Waterburg, Viljoenskroon.
April 11	Plague... ..	Peru ... ..	Piura Department, Ayabaca, Huancabambe Province. Cajamarca Department Chota Province.
„ 15	Smallpox ... ..	Java Island ... ..	Sourabaya.
„ 30	Plague... ..	Rhodesia (Northern) ...	Barotse Province.
„ 30	„ ... ..	Venezuela ... ..	Tacata, State de Miranda.
May 7	„ ... ..	Burma... ..	Rangoon.
„ 7	Smallpox ... ..	Chile ... ..	Whole Territory.
„ 17	Plague ... ..	Washington State (U.S.A.)	Lincoln, Douglas, Grant Counties.
„ 17	Smallpox ... ..	Indonesia ... ..	Pontianak, Borneo Island.
„ 17	Plague... ..	Union of South Africa ...	Dewetsdrop District, Orange Free State.
„ 25	„ ... ..	„	Thaba, Nchu District.
June 5	Typhus ... ..	Yugoslavia ... ..	Whole Territory.
„ 5	Smallpox ... ..	Indonesia ... ..	Jogjakarta
„ 5	„ ... ..	Belgian Congo ... ..	Lusambo
„ 15	„ ... ..	Gold Coast... ..	Whole Territory.
„ 21	Typhus ... ..	Iraq ... ..	Whole Territory
„ 28	Plague ... ..	Union of South Africa ...	Luckhoff Municipal Area (Orange Free State).
July 13	Smallpox ... ..	Greece... ..	Whole Territory
„ 13	„ ... ..	Borneo Indonesia ... ..	Bandjarmasin.
„ 31	Plague ... ..	Washington State (U.S.A.)	Killitas Country.
„ 31	Smallpox ... ..	Argentina & New Mexico...	Whole Territory

TABLE NO. 64. (contd.)

Date	Disease	Name of Country	Name of Locality considered as infected
<b>1950</b>			
August 7	Smallpox ... ..	Cameroons under British Administration ... ..	Whole Territory.
„ 7	Cholera ... ..	Burma... ..	Whole Territory.
„ 7	Yellow Fever ... ..	Union of South Africa (Bechuanaland) .. ..	Nyassaland and Barotseland.
„ 27	Plague ... ..	Union of South Africa ... ..	Johannesberg.
„ 27	„ ... ..	„ „ „ „ „ ..	Lady Grey Dist.—Aliwal North Dist.—Queenstown Dist.—Sterkstroom Dist. (Cape Province).
„ 30	„ ... ..	U.S.A.... ..	Texas County, Oklahoma State.
Sept. 7	Smallpox ... ..	Union of South Africa ... ..	Belgian Congo, Angola.
„ 7	Typhus ... ..	India ... ..	Kashmir Province.
„ 9	Plague... ..	Indonesia ... ..	Jogjakarta.
„ 9	Smallpox ... ..	French Establishment in India ... ..	Pondicherry.
„ 10	Plague... ..	Union of South Africa (Transval) ... ..	Johenesburg and Kurgersdorp Districts.
„ 30	Cholera ... ..	Portuguese India ... ..	Whole Territory.
„ 30	Plague... ..	U.S.A. ... ..	Arizona State
„ 30	„ ... ..	Brazil ... ..	Inhambupe, Bahia State.
„ 30	Cholera ... ..	Portuguese India ... ..	Whole Territory.
Oct. 15	Smallpox ... ..	Java Island ... ..	Panurukan, Pasuruan.
„ 15	Plague... ..	Union of South Africa (Transval) ... ..	Vlak Fontein, Fauresmith District
„ 15	„ ... ..	U.S.A.... ..	Kansas State.
„ 15	„ ... ..	Hawaii—Mani Island ... ..	Makawaa.
Nov. 4	„ ... ..	Union of South Africa ... ..	Beaufort West Dist.
„ 4	„ ... ..	Brazil ... ..	Bahia and Alagoas States.
„ 22	Smallpox ... ..	Borneo—Indonesia ... ..	Samarinda.
„ 22	Typhus ... ..	Peru ... ..	Whole Territory.
Dec. 14	Smallpox ... ..	Bechuanaland ... ..	Whole Territory.



TABLE NO. 65. RESTRICTIONS WERE WITHDRAWN FROM THE FOLLOWING LOCALITIES

Date		Disease	Name of Country	Name of Localities considered as decontaminated
<b>1950</b>				
January	28	Plague... ..	Chile ... ..	Santiago.
March	19	„ ... ..	Union of South Africa ...	Hay; Gordonias; Parys; Hopstaad; Vredvort.
May	3	Typhus ... ..	Greece ... ..	Whole Territory
„	3	Smallpox ... ..	Algiers... ..	Whole Territory
„	29	Plague... ..	Peru ... ..	Tumbes Department.
June	6	„ ... ..	Cape Province ... ..	Grey Municipal.
„	6	„ ... ..	Transval ... ..	Waterburg and Viljoenskroon.
August	12	„ ... ..	Venezuela ... ..	Tacata, State de Miranda.
„	21	Smallpox ... ..	Greece ... ..	Whole Territory
„	22	Plague... ..	Hawaii ... ..	Honokaa and Kapulena Areas Haina; Hamakua District.
October	10	Smallpox ... ..	Union of South Africa ...	Whole Territory.
„	17	Plague... ..	Burma... ..	Rangoon, Mulmein.
„	17	Smallpox ... ..	Burma... ..	Rangoon, Akyab.
November	4	Yellow Fever ...	French Somaliland ... ..	Whole Territory including Djibouti
„	4	Plague... ..	Indonesia ... ..	Jogjakarta.

# Simple Medical Inspection (Reconnaissance)

TABLE No. 66.—STATEMENT FOR ALL SHIPS ARRIVED DURING THE YEAR 1950

Port	Cargo	Passenger Vessels	Passenger and cargo	Sailing vessels and launches	Tankers	Various	TOTAL
Alexandria ... ..	—	275	930	113	80	21	<b>1,419</b>
Port-Saïd ... ..	1,939	395	506	356	3,126	438	<b>6,760</b>
Suez ... ..	410	27	48	425	484	16	<b>1,410</b>
Tor ... ..	—	—	7	97	4	—	<b>108</b>
Quseir ... ..	59	—	—	95	4	—	<b>158</b>
Damietta ... ..	—	—	—	145	—	—	<b>145</b>
Rosetta ... ..	—	—	—	—	—	—	—
Hurghada ... ..	80	—	—	20	—	—	<b>100</b>
Safaga ... ..	10	1	—	31	2	—	<b>44</b>
Kantara ... ..	—	—	—	2	—	—	<b>2</b>
Sollum ... ..	—	—	—	—	—	—	—
Ismailia ... ..	—	—	—	—	—	—	—
Abu Zenema ... ..	5	—	—	109	—	—	<b>114</b>
Mersa Matrouh ... ..	—	—	—	—	—	—	—
Ras Ghareb ... ..	136	—	158	3	—	—	<b>297</b>
Abu-qir ... ..	—	—	—	—	—	—	—
Brollos ... ..	—	—	—	—	—	—	—
Shellal ... ..	—	—	—	—	—	—	—



# Detailed Medical Inspection (Arraignment)

TABLE No. 67

Port	Cargo	Passenger Vessels	Passenger & cargo	Sailing vessels & launches	Tankers	Various	TOTAL
Alexandria ... ..	—	89	832	58	23	—	<b>1,002</b>
Port-Saïd ... ..	1,532	320	633	48	3,566	180	<b>6,279</b>
Suez ... ..	1,535	313	592	140	2,429	114	<b>6,123</b>
Tor ... ..	—	—	4	69	—	1	<b>74</b>
Quseir ... ..	33	—	—	6	—	—	<b>39</b>
Damietta .. ...	—	—	8	—	—	—	<b>8</b>
Rosetta ... ..	—	—	—	109	—	—	<b>109</b>
Hurghada .. ...	—	—	—	2	—	—	<b>2</b>
Safaga ... ..	12	—	—	17	—	—	<b>29</b>
Kantara ... ..	—	—	—	—	—	—	—
Sollum ... ..	—	—	—	2	—	—	<b>2</b>
Ismailia ... ..	—	—	—	—	—	—	—
Abu Zenema ... ..	7	—	—	—	—	—	<b>7</b>
Mersa Matrouh ... ..	—	—	—	1	—	—	<b>1</b>
Ras Ghareb ... ..	1	—	1	1	—	—	<b>3</b>
Abu-Qir ... ..	—	—	—	24	—	—	<b>24</b>
Brollos ... ..	—	—	—	—	—	—	—
Shellal ... ..	99	53	5	486	—	166	<b>809</b>

TABLE No. 68.—QUARANTINABLE AND INFECTIOUS DISEASES  
FOUND ON BOARD VESSELS.

ALEXANDRIA : Nil

PORT-SAID :

(a) Quarantinable Diseases :	Nil.
(b) Infectious Diseases : 38 cases on board 37 vessels consisting of the following diseases :	
3 Pulmonary Tuberculosis	
10 Pneumonia	
3 Influenza	
2 Bronchitis	
1 Dysentery	
2 Enteritis	
2 Coughing	
1 Poliomyelitis	
2 Typhoid	
1 Paratyphoid	
1 Hemorrhage	
6 Fever	
2 Typhoid Suspected	
1 Asthma	
1 Tonsilitis	
<hr/> 38	TOTAL
<hr/>	

SUEZ :

(a) Quarantinable Diseases :	
9 Feb. One case of smallpox (Indian crew on S.S. "Dorchester" arriving from Jogjakarta and Colombia) was isolated.	
March—One case of Modified Smallpox, isolated from s.s "Clan Pridie".	
September—Three cases convalescent Smallpox on S.S. "Orkadis" arriving from Sydney and Colombo.	
13 December—Three cases of mild smallpox (Indian crews) were isolated from S.S. "Ulrana" arriving from Calcutta, Visagabatam, Madras, Colombo and Aden.	
(b) Infectious Diseases : 1091 cases on board 227 vessels consisting of the following diseases :	
81 Influenza	
2 Whooping Cough	
302 Tuberculosis	
387 Malaria	
19 Chickenpox	
39 Measles	
6 Pleurisy	
1 Typhoid	
192 Dysentery	
7 Mumps	
2 Poliomyelitis	
2 Syphilis	
2 Leprosy	
21 Pneumonia	
3 Erysipelas	
18 Scabies	
2 Hepatitis	
2 Bronchitis	
3 Scarlet Fever	
<hr/> 1091	TOTAL
<hr/>	



TABLE NO. 69.—VACCINATION CARRIED OUT ON BOARD VESSELS

SUEZ :

42 Crew of the s.s. Semiramis, Jacavos Illa and Youssif Zinal Aly Rida  
 790 Crew of the s.s. Dorsetshire  
 3 Crew of the s.s. Timavo  
 7 Crew of the s.s. Carlo  
 95 Crew of the s.s. Triumph  
 3 Crew of the s.s. Portrose  
 42 Crew of the s.s. Youssif Zinal Aly Rida  
 5 Crew of the s.s. Star of Cairo  
 82 Crew of the s.s. Clan Pridie  
 5 Crew of the s.s. Troubadour  
 84 Crew of the s.s. Saqqarah  
 27 Crew of the s.s. Youssif Zinal Aly Rida  
 1 Crew of the s.s. Semiramis  
 4 Crew of the s.s. Youssif Zinal Aly Rida  
 2 Crew of the s.s. City of Exeter  
 22 Crew of the s.s. Yossif Zinal Aly Rida  
 24 Crew of the s.s. Al Amin  
 15 Crew of the s.s. Phillips  
 1 Crew of the s.s. Indian Trader  
 16 Crew of the s.s. Misr  
 11 Crew of the s.s. Al Sudan  
 6 Crew of the s.s. Al Amin  
 93 Crew of the s.s. Ulrana  
 32 Crew of the s.s. Derbyshire  
 All were vaccinated against smallpox

CONTROL OF PASSENGERS

TABLE NO. 70.—LANDING

Port	Class I and II	Class III and IV	TOTAL
Alexandria ... ..	17,784	14,994	<b>32,742</b>
Port Said ... ..	15,683	31,090	<b>46,773</b>
Suez... ..	3,636	18,829	<b>22,465</b>
Tor ... ..	36,041	—	<b>36,041</b> (Pilgrims)
Qusier ... ..	—	—	—
Kantara ... ..	2,598†	810*	<b>3,408</b>
Safaga ... ..	—	—	—
Hurghada ... ..	20	10	<b>30</b>
Ras Ghareb ... ..	538	396	<b>934</b>
Mersa Matrouh ...	—	—	—
Sollum ... ..	—	—	—
Ismailia ... ..	—	—	—
Damietta... ..	—	1	<b>1</b>

\* Arrived by Camels

† Arrived by train

TABLE No. 71.—EMBARKING

Port	I and II Class	III and IV Class	TOTAL
Alexandria ... ..	14,361	15,712	<b>30,073</b>
Port-Saïd .. ..	16,174	23,904	<b>40,078</b>
Suez ... ..	2,077	8,694	<b>10,771</b>
Tor ... ..	36,036	—	<b>36,036</b> pilgrims
Qusier ... ..	—	—	—
Kantara ... ..	2,956*	—	<b>2,956</b>
Safaga ... ..	—	—	—
Hurghada ... ..	10	8	<b>18</b>
Ras Ghareb ... ..	387	417	<b>804</b>
Mersa Matrouh ...	—	—	—
Sollum ... ..	—	—	—
Ismailia ... ..	—	—	—
Damietta ... ..	—	—	—

\* arrived by train.

TABLE No. 72.—AIRCRAFT DEALT WITH DURING 1950

Name of Airport	Landing	Departing	Aircraft disinsectised	Reconnaissance	Arraïsonement
Cairo ... ..	6,521	6,494	1,743	1,910	4,611
Almaza ... ..	2,184	2,085	417	1,388	1,138
Luxor ... ..	323	323	288	35	288
Alexandria ... ..	834	837	234	448	386
Mersa Matrouh ... ..	10	12	—	10	—
Fayed ... ..	2,571	2,715	678	1,040	1,531



TABLE No. 73.—PASSENGERS LANDED FROM AIRCRAFTS

Name of Airport	Landing	Departing	Transit	Isolated	Remarks
Cairo ... ..	134,732	34,633	103,248	634	13 Irregular certificates of anti cholera inoculation.
Almaza ... ..	21,166	20,852	4,784	63	Absence of stool examination certificates Irregular certificates of yellow fever inoculation.
Alexandria ... ..	4,820	4,880	13,538	37	Irregular certificates of anti-cholera inoculation. Irregular certificates of yellow fever inoculation.
Fayed ... ..	10,789	18,000	6,871	4	Irregular certificates of inoculation.
Luxor ... ..	216	88	7,231	2	Irregular certificates of yellow fever inoculation.
Mersa Matrouh ... ..	26	26	—	—	

# ANTI-PLAGUE WORK

Details of rat catching in town and port areas carried out in Alexandria, Port-Said and Suez and their identification by the laboratories.

As regards the fumigation of vessels, this is done by either the Clayton Gas process which is carried out by the Quarantine Administration, or by the Cyanide process which, until October 1948, was carried out by the Imperial Chemical Industries under the Quarantine Administration supervision.

Under Article 28 of the 1926 International Sanitary Convention which was modified in 1938, masters of ships have the option of either process.

The Imperial Chemical Industries withdrew from this work as from October 1948 and the Near East Chemical And Fumigation Company took its place as from January 1949 under the same conditions.

TABLE NO 74.—NUMBER OF RATS CAUGHT, DESTROYED OR EXAMINED IN THE PORTS.

Number and species of rats caught	Alexandria	Port-Said	Suez
R. Norvegicus ... { town ... port ...	4,129 17	7,838 358	1,404 110
R. Rattus ... { town ... port ...	5,743 1,863	21 294	1 18
Acomys Cahirinus ... { town ... port ...	2,152 97	— —	654 155
TOTAL ...	14,001	8,511	2,342
Soory ... { town ... port ...	— —	— —	706 831
Rats found dead ... { town ... port ...	— —	— —	— —
Rats killed... { town ... port ...	61 299	— —	— —
Plague infected rats found ... { town ... port ...	5 —	— —	— —
Rats found dead after fumigation on board vessels ;			
R. Rattus ...	15	—	24
R. Norvegicus ...	629	23	—
Acomys Cahirinus ...	21	—	—
Soory ...	441	2	5



TABLE No. 75.—FLEAS FOUND ON RATS CAUGHT

	Town		Port Area		TOTAL
	L.M.	X.Ch.	L.M.	X.Ch.	
<i>A.—Alexandria :</i>					
R. Norvegicus ... ..	38	96	—	28	<b>162</b>
R. Rattus ... ..	609	674	83	54	<b>1,420</b>
Acomys ... ..	—	—	—	—	—
<i>B.—Port-Said :</i>					
R. Norvegicus ... ..	182	316	65	134	<b>697</b>
R. Rattus ... ..	19	31	75	105	<b>230</b>
Acomys ... ..	—	—	—	—	—
<i>C.—Suez :</i>					
R. Norvegicus ... ..	—	—	—	—	—
R. Rattus ... ..	—	—	—	—	—
Acomys ... ..	—	—	—	—	—

L.M. = Leptopsylla Musculi.  
X. Ch. = Xenopsylla Cheopis.

TABLE No. 76.—VESSELS DERATISED

A.—Vessels deratised by the Quarantine Administration, (Clayton Process) :

Port of	Vessels			Process of deratization
	Steamers	Sailing	TOTAL	
Alexandria ... ..	10	—	<b>10</b>	Sulphur
Port-Saïd ... ..	—	—	—	„
Suez ... ..	<b>4</b>	—	<b>4</b>	„

B.—Vessels deratised by the Near East Chemical and Fumigation Industries, Ltd. under the supervision of the Quarantine Administration.

Port of	Vessels			Process of deratization
	Steamers	Sailing	TOTAL	
Alexandria ... ..	17	—	<b>17</b>	Cyanide
Port-Saïd ... ..	—	—	—	„
Suez ... ..	5	—	<b>5</b>	„

C.—Certificates of Exemption from Deratization issued to :

Port of	Vessels		
	Steamers	Sailing	TOTAL
Alexandria ... ..	61	15	<b>76</b>
Port-Saïd ... ..	80	27	<b>107</b>
Suez ... ..	74	70	<b>144</b>
Damietta ... ..	—	40	<b>40</b>
Quseir ... ..	—	45	<b>45</b>



Disinfection.

TABLE NO. 77.—DISINFECTION BY CHEMICAL MEANS

	Alexandria	Port-Said	Suez	Shellal	Tor
Disinfection of Decks of Vessels ... ..	19	—	—	—	43
Vessels with sick on Board ... ..	—	—	4	—	—
Water tanks disinfected ... ..	37	—	22	—	—
Water tanks purified ... ..	—	—	89	—	—
Vessels carrying animals ... ..	—	9	81	—	1
Barges and boats ... ..	141	44	360	—	5
Cabins occupied by sick ... ..	—	8	2	—	—
Motor cars and transport carts ... ..	108	—	5	7	—
Vessels from yellow fever zone ... ..	3	—	3,146	—	—
Effects of personnel disinfected... ..	—	—	50 K.	—	—
Miscellaneous .. ..	13	—	208	—	—
Effects in Kilos ... ..	—	—	1,173 K.	—	—
Effects of porters ... ..	1,378	—	338 K.	40	—
Number of stovefulls ... ..	—	82	—	—	—
Parcels disinfected without charge ...	—	3	—	—	—
Mooring Barges ... ..	—	486	—	—	—
Parcels disinfected and fees paid to Qua- rantine Administration ... ..	—	14,602.9k.	—	—	—
Parcels disinfected and fees paid to the Customs-house ... ..	—	120	—	—	—
Aircraft ... ..	—	—	—	—	68
Post parcels ... ..	67	—	—	—	—
Vessels disinfected with D.D.T. ... ..	1	—	—	—	—
Holds of vessels ... ..	190	—	—	—	—
Effects of passengers ... ..	—	—	1,326	—	—

DISINFECTION BY STEAM UNDER PRESSURE

	Alexandria	Port-Said	Suez	Shellal	Tor
Customs Parcels ... ..	147 K.	—	—	—	—
Hessian and wool ... ..	108663 ,,	—	—	—	—
Effects and clothes ... ..	167 ,,	—	—	—	—

TABLE No. 78.—CONTROL OF WATER DISTRIBUTION TO VESSELS  
IN THE PORTS :

	Alexandria	Port-Said	Suez
No. of specimens taken from water-tanks supplying the vessels ... ..	—	—	292
No. of specimens taken from taps supplying the water-Tanks ... ..	—	146	201
No. of specimens taken from taps supplying vessels ...	818	893	—

RESULT OF BACTERIOLOGICAL EXAMINATION

Specimens found fit for use .			
Taps ... ..	90	86	188
Water-Tanks .. ...	742	385	162
Specimens found unfit for use :			
Taps ... ..	91	60	104
Water-Tanks ... ..	76	508	39
Specimens found unfit for use :	1	—	—



TABLE No. 79. — CONTROL OF HIDES, SKINS AND ANIMAL DEBRIS

Article	Alexandria			Port-Said			Sues			Shellal		Tor	
	Import	Export	Transit	Import	Export	Transit	Import	Export	Transit	Import	Export	Import	Export
Ox hides... ..	kilos 101,664	kilos 49,470	bales 1,456	kilos 118,623	—	bales 41,523	kilos 52,368	—	kilos 15,260	kilos 1,372,646	—	—	278
Sheep and goat skins ...	pieces 2,845	pieces 188,599	K. 500 bales 543	—	—	—	—	—	bales 30	—	—	—	8
Salted guts ... ..	kilos 6,874	kilos 502,839	—	—	—	barrels 4	kilos 12,085	kilos 1,095	tins 20	—	—	—	—
Horns and hoofs ...	—	kilos 16,623	—	—	—	sacks 23	—	—	—	—	—	—	—
Wool ... ..	kilos 66,577,405	kilos 580,134	bales 19	—	—	bales 34,858	kilos 268,403	kilos 19,830	—	kilos 104	kilos 12,591,500	—	—
Animal hair ... ..	kilos 25,581	kilos 167,595	—	—	—	—	kilos 241	—	—	kilos 28	—	—	—
Goat hair ... ..	—	—	—	—	—	bales 477	—	—	kilos 330	—	—	—	—
CONTROL OF RAGS, USED CLOTHES, ETC.													
Rags ... ..	126,515	20,117,024	—	tons 590.685	tons 515.405	bales 43	kilos 532	—	bales 1	—	—	—	—
Used clothes ... ..	—	—	—	4.386	24.022	8,394	—	—	—	—	—	—	—
Used jute ... ..	—	—	—	78.316	72.114	33,835	—	—	—	—	—	—	—
Shoes (Used) ... ..	—	2,400	—	—	—	—	—	—	—	—	—	—	—

# Chapter VIII.—Food Control

TABLE No. 80.— STATISTICS SHOWING QUANTITIES OF FOODSTUFFS CONDEMNED AND NUMBER OF SAMPLES TAKEN AND THE RESULTS OF THEIR ANALYSIS DURING 1950

Names of Articles	Foodstuffs Condemned						Samples taken				Percentage	
	Number	Bottle	Cans	Rotl (lb.)	Oke		Number of Samples	Genuine	Adulterated	Unfit	Adulteration	Unfitness
											%	%
1.—Fresh Foods:												
Fruits and Vegetables	71,016	—	3,240	32,230	34,703		78	76	—	2	—	2.5
Fish	996	—	25	2,844	3,944		—	—	—	—	—	—
Meat	—	—	—	2,502	462		1	—	—	1	—	100
Other Fresh Foods	9,263	97	—	436	48		—	—	—	—	—	—
2.—Cooked Foods	60,575	23	348	1,879	1,942		8	8	—	—	—	—
3.—Canned Foods:												
Jams	3	4	260	45	225		17	16	—	1	—	6
Milk and its Products	—	14	111	10	30		79	67	—	12	—	15
Fruits and Vegetables	419	119	2,638	331	2,153		54	54	—	—	—	—
Meat	83	—	10,321	50	31		39	30	—	9	—	23
Fish	1,131	31	3,163	665	2,712		127	113	—	13	—	11.5
Other Canned Foods	3,055	313	57	261	390		11	11	—	—	0.7	—
4.—Oils:												
Olive Oil	—	—	—	16	—		149	139	—	6	2.5	4
Sesame Oil	—	—	—	40	6		315	300	—	8	2.2	2.5
Linseed Oil	—	—	—	21	466		199	174	—	21	2	10.5
Lettuce Oil	—	—	—	—	—		9	8	—	—	11	—
Safflower Oil	—	—	—	—	—		19	19	—	—	—	—
Cotton-Seed Oil	—	—	—	170	62		209	209	—	—	—	—





TABLE NO. 81.—STATISTICS SHOWING WORK DONE BY FOOD CONTROL GANGS  
IN CUSTOMS HOUSES DURING 1950

A.—*Consignments Examined and Results of Samples taken therefrom.*

No. of Consignments Examined	No. of Samples taken	Results of Analysis		
		Genuine	Unfit	Adulterated
35,169	1,290	874	214	202

B.—*Foodstuffs Condemned or Refused their entry into the Country*

Kind of Foods	Kgrs.	Boxes, Sacks or Drums	Bottles	Cans
<b>1.—Fresh Foods :</b>				
Vegetables ... ..	52,755	—	—	—
Fruits ... ..	26,142	1,060	—	—
Meat ... ..	22,399	914	—	—
<b>2.—Canned Foods :</b>				
Jams and Dried Fruits ... ..	79,984	27,267	—	432
Milk ... ..	26,475	2,044	—	163
Meat ... ..	58,142	2,299	—	224
Fish ... ..	22,954	4,631	—	39
<b>3.—Oils :</b>				
Cotton seed oil ... ..	172	5	—	4
Butter and Masli... ..	15,782	705	—	—
Fat and Margarine ... ..	1,150	—	—	143
<b>4.—Other Foods :</b>				
Cheese ... ..	705	917	—	—
Flour ... ..	131,691	1,016	—	—
Flour Products ... ..	748	1,584	—	—
Seeds and Corns... ..	10,143	856	—	—
Nuts and Almonds ... ..	85,851	1,877	—	—
	19,859	3,299	—	—
Spices ... ..	6,408	3,931	—	—
Sweets and Chocolate ... ..	1,069	3,445	—	—
Tea ... ..	130,308	2,005	—	—
Coffee ... ..	1,966	198	—	—
Alcoholic liquors ... ..	64,199	42	1,352	—
Sugar ... ..	371	297	—	—
Chemicals ... ..	—	100	12	—
Tamarind ... ..	5,080	100	—	—
Dry Beans ... ..	3,480	237	—	—
Egg Powder ... ..	9,994	63	—	—
<b>TOTAL ... ..</b>	<b>776,827</b>	<b>58,950</b>	<b>1,364</b>	<b>1,005</b>



TABLE NO. 82 (A)—CONSIGNMENTS OF TEA AND THOSE OF INFERIOR QUALITY IMPORTED  
TO CUSTOMS HOUSES DURING 1948, 1949 AND 1950.

Names of Customs	Consignments of tea imported to Customs in general			Consignments of tea of inferior quality imported to Customs		
	1948	1949	1950	1948	1949	1950
Canal Customs House ...	1,086	2,047	1,942	1	34	12
Alexandria „ „ ...	612	985	1,461	4	8	29
Suez „ „ ...	230	355	718	—	1	3
Damietta „ „ ...	—	—	—	—	—	—
Cairo „ „ ...	2	1	149	—	—	—
TOTAL ... ..	1,930	3,388	4,270	5	43	44

(B)—DIFFERENT SAMPLES OF FOODSTUFFS TAKEN DURING 1950

Total number	Genuine	Adulterated	Unfit
27,546	25,664	1,028	854

TABLE NO. 83.—DIFFERENT SAMPLES OF FOODSTUFFS (GENUINE, ADULTERATED AND UNFIT)  
AT THREE IMPORTANT LOCALITIES HAVING NO SANITARY INSPECTORS.

Name of Locality	Year	Total Number	Genuine	Adulterated	Unfit
Luxor ... ..	1948	148	137	5	6
	1949	282	247	7	28
	1950	408	383	9	16
Mallawi ... ..	1948	172	154	15	3
	1949	155	138	16	1
	1950	177	166	10	1
Fouadia ... ..	1948	1,066	967	30	69
	1949	999	934	17	48
	1950	711	675	18	18

TABLE NO. 84.—DIFFERENT SAMPLES OF FOODSTUFFS (GENUINE, ADULTERATED AND UNFIT)  
AT THREE IMPORTANT LOCALITIES HAVING SANITARY INSPECTORS.

Name of Locality	Year	Total Number	Genuine	Adulterated	Unfit
Mansoura ... ..	1948	1,347	1,207	65	75
	1949	1,440	1,300	80	60
	1950	1,556	1,414	97	45
Tanta ... ..	1948	1,177	1,072	86	19
	1949	1,686	1,526	128	32
	1950	1,719	1,576	110	32
Giza ... ..	1948	1,455	1,306	119	30
	1949	1,950	1,777	165	8
	1950	2,140	1,870	252	18

TABLE NO. 85.—SAMPLES OF TIN EXAMINED  
DURING 1948, 1949 AND 1950

Year	Samples examined	Samples adulterated
1948... ..	142	7
1949... ..	187	7
1950... ..	280	3



TABLE No. 86 —VARIOUS STATISTICS, 1950

P.V. drawn up according to article II of Law No. 48 of 1941	P.V. drawn up against Itinerant Vendors	P.V. drawn up against Milk Vendors	Bandars to which the itinerant vendors regulations were applied	Bandars to which the regulations of milk Vendors were applied	No. of itinerant Vendors licensed during 1950	No. of Milk Vendors licensed during 1950
1,737	9,066	5,529	15	10	1,335	343

SAMPLES OF MILK TAKEN AND THE RESULTS OF THEIR ANALYSIS 1950.

No. of Samples	Results of Analysis				Percentage
	Genuine	Adulterated by removal of fat	Adulterated by addition of water	Adulterated by both	
13,164	12,094	545	475	53	7.65 %

## PART II. — SOCIAL HYGIENE

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### Chapter IX.—Maternity and Child Welfare

During the year, a number of representatives of the foreign press and world health experts paid visits to child welfare units with a view to studying the health and social problems in Egypt. Dr. Taylor and Miss Codleman visited child welfare centres in Cairo and the provinces and submitted a detailed report which is still under consideration. Dr. Peryl Halet, Director of child Welfare in France and Dr. Fieldman also visited these centres and expressed their appreciation of their activities.

Fellowships were awarded by UNICEF and WHO to members of the section to study new developments in child care in France, England, Switzerland and Scandinavian countries.

During the year, the Itsa and Abshaway child welfare centres, hitherto under the supervision of Fayoum Provincial Council, have been attached to the Ministry.

A child welfare centre was opened on 1/1/1950 at Manchiet el Bakry, Cairo. Souhag centre was transferred to Salama Abdulla memorial home on 27/1/1951.

Two in-patient sections were provided in Suez and Ismailia centres.

Considering the nutritional value of milk, the amount of milk distributed by the centres has been increased threefold.

The child welfare units contributed in the B.C.G. mass vaccination campaign conducted by the Chest Diseases Section in conjunction with WHO and UNICEF by undertaking the vaccination of their births and others.

New transport vehicles have replaced old ones in Cairo. This arrangement is being adopted in the provinces. 30 assistant midwives have been appointed against a credit of L.E. 1,980 under the Labour Act.



TABLE NO. 87.—DETAILS OF THE ACTIVITIES OF THE MATERNITY AND CHILD WELFARE CENTRES DURING THE YEAR UNDER REVIEW :

Cases	Number
Old Pregnants ... ..	524,436
New Pregnants ... ..	131,985
Blood specimens for Wassermann Reaction ... ..	50,732
„ „ returned positive for Wassermann Reaction... ..	3,003
Children attending centres... ..	1,917,211
„ vaccinated against small pox ... ..	35,181
„ inoculated against diphtheria ... ..	31,523
Confinements attended by midwives ... ..	11,598
„ „ „ assistants ... ..	110,884
„ „ „ medical officers ... ..	343
„ from out-side (not registered)... ..	11,691
Total confinements ... ..	122,825
Confinements forwarded to hospitals ... ..	3,008
Still Births full term ... ..	1,009
„ „ within first three months... ..	94
Premature still births ... ..	629
Maternal mortality due to child birth ... ..	51
Infantile deaths within first month of life ... ..	703
Medical officers visits to sick puerperals ... ..	515
Visits to pregnant during 9 <sup>th</sup> month ... ..	} 46,012 by midwives 3,386 by assistants
„ to puerperal mothers ... ..	
Other visits ... ..	} 95,280 by midwives 37,047 by assistants
Visits to homes of pregnant ... ..	
„ „ „ „ infants... ..	37,331
Cases of eclampsia ... ..	44,401
„ „ Laceration of Perineum ... ..	95,190
„ „ Placenta Praevia ... ..	66
Visits to puerperal fever cases... ..	632
Specimens of urine taken ... ..	48
Prenatal albuminuria ... ..	3,734
„ diabetes ... ..	52,090
Lectures delivered by medical officers ... ..	11,140
„ „ „ midwives ... ..	229
„ „ „ health visitors ... ..	5,573
Food contributions to mother and babe ... ..	6,965
Ready made garments contributed... ..	12,791
Cloth Material ... ..	333,754 kgs.
	2,763
	6,340 metres

## Chapter X. — Chest Diseases

### *Statistical Data :*

According to the 1949 report, a total of 95,292 positive tuberculous cases diagnosed by the Chest Diseases dispensaries were recorded between 1929 and that year. A further 11,404 positive cases were detected during the year 1950, making a total of 106,696 cases at the end of 1950.

During the year, the following units were opened :-

1. Mellawi Chest Diseases Unit—on 15/10/1950, with an out patient dispensary, an in-patient department and a children's preventorium (opened in November 1950).

2. Zagazig Chest Diseases Hospital—constructions completed and opened on 11/11/1950.

3. Shebin El Kom Chest Diseases Dispensary—In-patient department opened on 2/12/1950.

4. Damanhour Chest Diseases Hospital—constructions completed and opened for treatment on 16/12/1950.

5. Stationary Mass Radiography Unit—set up at Muftadayan Chest Diseases Dispensary in December 1950.

6. Stationary Mass Radiography Unit—set up at Alexandria Chest Diseases Dispensary in December 1950.

Thus, the Chest Diseases Units are now as follows :-

24 dispensaries

1 mobile mass radiography unit (actually annexed to Muftadayan Chest Diseases Dispensary).

17 branch dispensaries

17 in-patient departments within dispensaries

5 sanatoria

2 surgical T.B. institutions exclusive of Port Said Maritime Sanatorium, which, besides functioning as a chest diseases unit, has received few bone cases.

4 preventoria

1 colony for convalescents.

Patients of Giza Sanatorium have been transferred to Almaza Sanatorium as from 13/4/1950 and those of Sherbin In-patient Department to Damietta Chest Diseases Hospital as from 9/5/1951, owing to the demolished condition of the buildings.

The headquarters of the Mass Radiography Mobile Unit has been transferred from Khalifa to Muftadayan Chest Diseases Dispensary as from 28.9.1950.

The Alexandria Preventorium was closed down and resident children placed in the care of the Women's Society for Health Improvement under an agreement whereby an annual sum of L.E. 2,000 would be contributed to the Society for keeping such children as may be forwarded by the ministry who retains technical supervision.

The following are the occupations of tuberculous patients detected during the year 1950 :

699 Tradesmen consisting of :

164 foodstuff vendors,

53 poultry and cattle merchants,

134 grocers,

61 fruiterers and

287 other trades.



899 Employees including :

438 civil servants,

181 commercial employees,

43 teachers and

237 other employments.

3,124 Craftsmen consisting of :

118 cooks, 77 waiters, 193 barmen, 118 domestic servants, 80 servants (farrashes), 59 gate-keepers, 160 barbers, 96 laundrymen, 168 drivers, 183 tailors, 127 shoemakers, 150 carpenters, 114 painters, 134 building labourers, 121 employees in cigarette firms, etc. 398 weavers, 200 mechanics, 71 printers and 557 other occupations.

2,136 Farmers.

445 Pupils.

4,104 Unemployed including :

2,572 invalids

754 children

775 unemployed.

Of 188,020 new patients examined during the year, 11,404 were found positive for tuberculosis. Of these, 762 were children (less than 10 years old) and the remaining 10,642 were adults.

Of 7,288 contacts, (3,419 children and 3,869 adults) examined, 194 developed tuberculosis.

34,731 home visits were paid this year by health visitors and 8,663 by medical officers.

Appended to this report are detailed statistical data of the work carried out by the various dispensaries and other institutions.

#### RESUME OF ACTIVITIES IN MEDICAL AND SOCIAL SPHERES.

Medical, social and preventive activities proceeded according to plan.

During this year, the following measures were undertaken :—

I. In pursuance of the policy of developing the anti-tuberculosis service in Egypt, the Ministry has, with the aid of the inhabitants, completed the construction of several institutions for tuberculosis, namely :

(a) Mellawi Chest Diseases Unit - erected on a site of land three feddans in area. It consists of an out-patient dispensary, a 35-bed in-patient department, and a 60-bed preventorium. The total cost of the buildings amounted to L.E. 40,000 of which L.E. 10,000 were contributed by Abdel Meguid Seif El Nasr Pasha. The unit was opened for treatment on 15/10/1950.

(b) Damanhour Chest Diseases Unit - erected on a site of land about five and a half feddans in area. It consists of an out-patient dispensary and a 100-bed in-patient department and is capable of future expansion. The total cost of the buildings amounted to L.E. 70,000 of which L.E. 29,153 were contributed by the inhabitants of the Province. The equipment cost L.E. 10,000. The unit was opened for treatment on 16/12/1950.

(c) Zagazig Chest Diseases Hospital - erected on a site of land about two feddans and a quarter in area. It consists of an out-patient dispensary and a 50-bed in-patient department and is capable of future expansion. The total cost of the buildings amounted to L.E. 8,000. Equipment of the hospital cost L.E. 2,000. It was opened for treatment on 11.11.1950.

II.—B.C.G. Vaccination: According to an agreement between the Government of Egypt and the World Health Organization, a B.C.G. vaccination campaign was launched for one year, then sanction was obtained to prolong the period of stay of the international teams till 30.6.1951. Meanwhile, the Egyptian teams were increased to 16, besides 6 stationary centres in dispensaries. Test examination was undertaken throughout the Country. The Chest Diseases Section has undertaken the training of all its medical officers and nursing staff in the vaccination technique; and steps were also taken, jointly with the Child Welfare Section, and the School Hygiene to train their medical staff, so that they might co-operate with the Chest Diseases Dispensaries in this work. Arrangements have also been made for all the dispensaries in the Country to act as vaccination centres, besides the provision of some mobile teams for this purpose.

The total number of persons tested by tuberculin from the beginning of this Campaign on 1.12.1949 until the end of January 1951 amounted to 1,155,465. 336,483 of these have been vaccinated. They can be distributed according to the various Governorates and Provinces as follows:

TABLE No. 88

Locality	No. tested	No. vaccinated
Cairo Governorate ... ..	67,820	27,834
Canal „ ... ..	1,390	122
Suez „ ... ..	31,351	11,431
Damietta... ..	52,707	17,869
Gharbia Province ... ..	332,200	84,073
Fouadia „ ... ..	3,023	607
Menoufia „ ... ..	284,936	78,002
Dakahlia „ ... ..	189,886	56,638
Qaliubia „ ... ..	2,901	373
Fayoum „ ... ..	11,116	3,411
Assiut „ ... ..	75,034	27,173
Gerga „ ... ..	42,264	9,439
Qena „ ... ..	6,663	501
Aswan „ ... ..	45,637	18,016
Sinai Governorate ... ..	8,537	994
<b>TOTAL ... ..</b>	<b>1,155,465</b>	<b>336,483</b>

The approval of the Ministry has been obtained for the erection of a laboratory for the preparation of B.C.G. vaccine within the present buildings of the Vaccine and Serum Institute, Agouza. The laboratory is in course of completion and will be opened during the year 1951. The necessary apparatus have been kindly presented by the World Health Organization. Concentrated tuberculin will be imported from Copenhagen quarterly, and will be diluted at the Vaccine and Serum Institute, Agouza and supplied to the various teams.



The institution of a Central Statistical Office has also been approved with a specialized Statistician from WHO for the inspection of vaccination cards. Egyptian staff will be trained in that office in future.

A Bacteriological Diagnostic Laboratory has been proposed within the Laboratories Department. It is hoped that WHO will provide the necessary equipment.

III. The Section takes special interest in Mass Radiography. Two stationary units for this purpose have been erected : one at Muftadayan Dispensary and another at Alexandria Dispensary, in addition to the Mobile Unit already in service.

The two apparatus are intended for the examination of attendances at the two Dispensaries, and other localities where this examination is deemed necessary.

The Mobile Unit has already visited various parts of the country. A total of 51,087 cases were examined during 1950, of which 132 cases were returned positive, 1,011 suspicious and 49,944 negative, distributed as follows :

TABLE NO. 89

	No. examined	Positive	Suspected	Negative
1. Officers and men of the Police College and Auxiliary Police of Cairo and Provinces ...	10,412	56	353	10,003
2. Cairo Water Co. ... ..	953	2	15	936
3. Fertiliser Factory, Abu Zaabal ... ..	251	1	11	239
4. Al Horrya Institute and Asylum, Mataria ...	225	—	7	218
5. Mass Survey for inhabitants of Sindibis village	2,879	12	113	2,754
6. Leprosy Colony, Abu Zaabal ... ..	784	11	27	746
7. Suez Area : Shell Co. workmen, Petroleum, Police and Government Officials ... ..	5,149	11	139	4,999
8. Mass Survey of inhabitants of El Serw area	1,670	11	15	1,644
9. Mass Survey of Personnel and Pupils of Mansoura Control of Education ... ..	6,283	21	162	6,100
10. Mass Survey of Personnel and Pupils of Damietta Control of Education ... ..	22,481	7	169	22,305
<b>TOTAL ... ..</b>	<b>51,087</b>	<b>132</b>	<b>1,011</b>	<b>49,944</b>

Positive and suspected cases were summoned to examination centres, where large films were made for them, and sputum of several cases examined. Annexed is a statistical list of the Mass Radiography Survey carried out during 1949 and 1950.

IV.—Since the annual governmental subsidy of L.E.45,000 provided last year for the aid of poor tuberculosis patients proved insufficient owing to the ever increasing number of needy patients, occasioned by the prevailing bad living conditions, a credit of L.E. 60,000 has been granted this year.

Besides, credits to the value of L.E.3,500 have been contributed by the Municipalities, and a sum of L.E. 1,500 was granted by the Council of Ministers.

The total of L.E. 60,071 were distributed during the year among 3,255 families by the Chest Diseases Dispensaries.

V.—As in previous years, the Section has sent inmates of Helwan and Marg Preventoria to Alexandria during Summer. They were sent in three groups of 30 children each to spend three weeks in the summer resort, and for heliotherapy treatment. They were accommodated at the Maritime Sanatorium, San Stefano. The bus of Fouad Sanatorium was placed at their disposal for transport to and from the sea side. They were under the charge of a social worker.

The following are details of the different courses of treatment given at the units during the year :

TABLE NO. 90.—TREATMENTS FOLLOWED IN THE DISPENSARIES  
AND RESULTS THEREOF, DURING 1950

DOMICILIARY TREATMENT					ARTIFICIAL PNEUMOTHORAX					
				Number					Number	
CONDITION ON 1ST EXAMINATION	Tuberculous patients ... ..			11,754	Patients treated with A.P. ...				4,147	
	Sputum	Positive ... ..	7,858	1st Inductions ... ..				835		
		Negative ... ..	3,896	Refills ... ..				41,452		
	Lesion	Unilateral ... ..	4,787	CONDITION BEFORE TREATMENT	Sputum	Positive... ..	3,469			
		Bilateral ... ..	6,967			Negative ... ..	678			
Cavitary ... ..		5,606	Unilateral ... ..			2,842				
Last Sputum Examination	Positive... ..	6,339	Lesion	Bilateral ... ..	1,305					
	Negative ... ..	5,415		Cavitary ... ..	2,642					
RESULT OF TREATMENT	Increase of weight ... ..			5,304	STOPPED A.P. & CAUSE	Haemoptysis ... ..			436	
	Decrease of weight... ..			2,333		Unilateral A.P. ... ..			3,597	
	Stationary... ..			3,216		Bilateral A.P. ... ..			504	
	Died ... ..			901		Extrapleural A.P. ... ..			33	
	Unable to work ... ..			4,249		Pneumo-Peritoneum (P.P.) ...			13	
	Walking ... ..			3,418		Continued refills ... ..			2,763	
	Light work ... ..			2,587		Adhesions ... ..			252	
	Full work... ..			599		Bilateralization ... ..			254	
RESULT OF TREATMENT					RESULT OF TREATMENT	Effusion ... ..				221
						Sputum still positive ... ..				1,545
						Sputum still negative ... ..				798
						Sputum returned negative ...				1,606
						Sputum returned positive... ..				198
						Increase of weight ... ..				2,528
						Decrease „ „ ... ..				747
						Stationary ... ..				671
						Died ... ..				201
						Incapable of work ... ..				956
				Walking ... ..				942		
				Light work ... ..				1,702		
				Full work ... ..				346		



**TABLE No. 91.—STATISTICS OF PATIENTS IN SANATORIA AND IN-SECTIONS OF DISPENSARIES :**  
**(DAMANHOUR, TANTA, MANSOURA, SHEBIN EL KOM. ZAGAZIG, DAMIETTA, SHERBIN, ZIFTA,**  
**FAYOUM, BENI SUEF, MINIA, MELLAWI, ASSIUT, SOUHAG, ASWAN) ; IN 1950—**  
**AND THE RESULTS OF THEIR TREATMENT.**

	UNITS	Sanatoria							In patient Sections in Dispensaries
		Almaza	Abbassia	Giza	Alex- andria	Mehalla Kobra	Suez	Port Said	
BEFORE ADMISSION	No. of Inpatients discharged	1,894	1,162	243	324	449	72	528	1,472
	Sputum	1,369	790	123	270	349	54	341	767
		525	372	120	54	100	18	187	705
	Lesion	1,097	491	116	164	289	56	412	1,068
		797	671	127	160	160	16	116	404
	Temperature	666	635	120	176	138	12	180	675
		1,379	356	148	84	370	20	461	798
	General treatment	515	806	95	240	79	52	67	674
		1,894	1,162	243	183	228	20	528	1,014
	Exercise	220	439	243	164	221	50	462	419
TREATMENT GIVEN	Gold therapy	—	2	—	—	—	—	—	4
		—	6	—	—	—	—	—	63
	Streptomycin	—	—	—	35	33	—	—	254
		17,202	10,457	—	1,662	495	—	—	6,204
	A. P.	904	285	153	98	181	30	239	491
		11,919	6,532	2,844	1,486	2,622	485	1,964	12,201
	Extra pleural A.P.	3	1	—	—	—	—	132	—
	Phrenic Crush	401	245	—	6	30	10	9	82
	Pleurotomy	27	3	—	—	—	—	—	—
	Aspiration	472	253	—	24	15	5	81	254
CAUSES OF DISCHARGE	Thoracoplasty	101	15	—	—	5	2	1	1
	Adhesiotomy	5,359	249	—	21	63	15	36	31
	Complications	50	392	—	5	—	—	—	75
	No. of other injections given	9,475	15,018	—	3,211	1,025	242	4,240	3,836
	Pat. went on leave and did not return	323	13	18	10	24	2	20	41
	At request	476	572	7	—	—	1	—	61
		114	57	22	137	100	25	143	243
	Agreement of Physician	981	520	196	177	325	44	365	1,127
	Weight	1,227	683	182	201	302	52	316	921
		512	210	26	73	100	8	144	258
CONDITION ON DISCHARGE	Temperature	155	269	35	50	47	12	68	293
		1,318	815	192	173	403	58	472	1,179
	Sputum	576	347	61	151	46	14	56	293
		814	542	102	196	178	—	111	434
	Successful A.P. continued	336	115	12	49	134	—	187	512
		534	355	108	74	113	47	131	347
	A.P. failed	210	150	21	5	24	25	99	179
		—	386	—	—	—	45	239	329
	Condition improved	—	135	—	—	—	7	23	205
		1,253	702	103	127	313	51	379	937
	Condition worse	100	69	29	93	62	6	13	162
	Condition stationary	377	287	80	82	60	8	92	324
	Died	164	104	31	24	14	7	44	49
	Ability to Work	—	38	—	2	17	19	—	57
		1,251	419	105	124	206	33	386	855
	Average duration of stay in days	479	601	107	174	212	13	98	511
		136	173	167	131	130	210	99	88
	Patients stayed 6 months or more	635	233	175	113	101	52	51	446
	Patients stayed less than 6 months	1,259	929	68	211	348	20	477	1,026

TABLE No. 92 —NUMBER OF T.B. POSITIVE CASES NOTIFIED BY THE CHEST DISEASES DISPENSARIES ACCORDING TO RESIDENCE, DURING 1950.

Dispensaries	Cairo	Alexandria	Damietta	Port-Said	Canal, Suez and Ismailia	Behera	Gharbia	Fouadia	Menoufia	Dakahlia	Sharkia	Qalutbia	Giza	Beni-Suef	Fayoum	Minia	Assiut	Gerga	Qena	Aswan	Oases	TOTAL
Boulaq ...	1,392	6	3	—	2	—	5	—	—	2	—	110	33	4	—	—	—	—	3	—	—	1,560
Mubtadayan ...	844	8	—	—	7	4	33	3	12	30	19	109	545	6	—	—	4	3	4	3	—	1,639
Khalifa ...	1,040	5	—	2	9	—	11	—	—	—	3	68	36	14	1	—	2	—	—	—	—	1,192
Damanhour ...	—	—	—	—	—	220	—	48	—	—	—	—	—	—	—	—	—	—	—	—	—	268
Alexandria ...	—	689	—	—	—	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	734
Baccus ...	—	210	—	—	1	22	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	241
Tanta ...	—	—	—	—	—	14	270	13	32	—	—	—	—	—	—	—	—	—	—	—	—	327
Mansoura ...	1	—	—	—	—	—	83	—	—	280	5	—	—	—	—	—	—	—	—	—	—	369
Shebin el Kom...	—	—	—	—	—	—	—	—	250	1	1	37	—	—	—	—	—	—	—	—	—	289
Mehalla el Kobra	—	—	—	—	—	—	415	68	4	41	2	—	—	—	—	—	—	—	—	—	—	530
Zagazig ...	1	—	—	1	8	—	1	—	1	39	343	15	—	—	1	—	—	—	—	—	—	410
Damietta ...	1	—	177	—	2	—	119	—	—	345	—	—	—	—	—	—	—	—	—	—	—	644
Port Said ...	1	—	1	394	123	—	—	—	—	22	3	—	—	—	—	—	—	—	—	—	—	544
Sherbin ...	—	—	—	—	—	—	159	7	1	180	2	—	—	—	—	—	—	—	—	—	—	349
Zifta ...	—	—	—	—	—	—	154	3	1	134	1	—	—	—	—	—	—	—	—	—	—	213
Suez ...	—	—	—	—	225	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	226
Fayoum ...	—	—	—	—	—	—	—	—	—	—	—	—	—	46	257	—	—	—	—	—	—	303
Beni Suef ...	—	—	—	—	—	—	—	—	—	—	—	—	—	129	—	1	4	—	—	—	—	133
Minia ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	253	44	—	—	—	—	278
Mellawi ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	145	—	5	—	—	146
Assiut ...	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	334	19	3	—	—	363
Souhag ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	173	—	—	—	176
Qena ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	178	16	—	194
Aswan ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	163	—	174
TOTAL ...	3,284	918	181	397	377	305	1,258	142	301	1,074	380	339	614	199	260	265	529	195	204	182	—	11,404



TABLE NO. 93.— CASES REPORTED DEAD TO DISPENSARIES  
DURING THE YEAR 1950, ACCORDING TO AGES.

Dispensaries	1-5 Years	5-15 Years	15-25 Years	25-35 Years	35-45 Years	Above 45 Years	TOTAL
Boulaq ... ..	29	34	78	90	40	23	<b>294</b>
Mubtadayan ... ..	4	15	72	56	16	10	<b>173</b>
Khalifa ... ..	6	29	49	35	25	6	<b>150</b>
Damanhour ... ..	—	2	16	16	17	10	<b>61</b>
Alexandria ... ..	15	10	16	18	6	9	<b>74</b>
Baccus ... ..	1	—	5	3	1	—	<b>10</b>
Tanta ... ..	3	4	11	9	9	11	<b>47</b>
Mansoura... ..	—	5	18	17	7	8	<b>55</b>
Shebin el Kom ... ..	—	1	14	25	8	1	<b>49</b>
Mehalla el Kobra ... ..	—	2	19	27	23	5	<b>76</b>
Zagazig ... ..	—	1	7	6	6	3	<b>23</b>
Damietta... ..	2	5	15	20	2	3	<b>47</b>
Port-Saïd... ..	—	7	28	21	12	12	<b>80</b>
Sherbin ... ..	4	11	23	14	11	3	<b>66</b>
Zifta... ..	5	4	10	13	8	5	<b>45</b>
Suez ... ..	—	—	5	13	9	2	<b>29</b>
Fayoum ... ..	—	4	23	35	17	3	<b>82</b>
Beni Suef ... ..	1	3	11	12	1	5	<b>33</b>
Minia ... ..	—	4	16	15	11	4	<b>50</b>
Mellawi ... ..	—	1	—	—	—	—	<b>1</b>
Assiut ... ..	1	7	19	8	8	6	<b>49</b>
Souhag ... ..	4	7	7	6	4	4	<b>32</b>
Qena ... ..	2	3	8	11	6	10	<b>40</b>
Aswan ... ..	1	2	5	6	3	5	<b>22</b>
<b>TOTAL ... ..</b>	<b>78</b>	<b>161</b>	<b>475</b>	<b>476</b>	<b>250</b>	<b>148</b>	<b>1,588</b>

**TABLE No. 94.—NUMBER OF VARIOUS UNITS ATTACHED TO THE SECTION  
AND ITS PROGRESS YEAR AFTER YEAR FROM 1929 TO 1950.**

Year	Chest Diseases Dispensaries			Chest Sanatoria	T.B. Bone Sanatoria	Preventoria	T.B. Convalescent Colonies.
	Dispensaries	Branches	In-Patient Sections				
1929 ... ..	2	—	—	—	—	—	—
1930 ... ..	3	—	—	—	—	—	—
1931 ... ..	3	—	—	—	—	—	—
1932 ... ..	3	—	—	—	—	—	—
1933 ... ..	4	—	—	—	—	—	—
1934 ... ..	4	—	—	1	—	—	—
1935 ... ..	5	—	—	1	—	—	—
1936 ... ..	6	—	—	1	1	—	—
1937 ... ..	8	—	—	1	1	—	—
1938 ... ..	12	—	2	2	1	1	—
1939 ... ..	13	—	2	2	1	1	—
1940 ... ..	14	—	4	2	1	4	—
1941 ... ..	14	1	4	2	1	4	—
1942 ... ..	15	3	6	2	2	4	—
1943 ... ..	15	3	6	2	2	4	1
1944 ... ..	16	4	8	3	2	4	1
1945 ... ..	17	4	10	3	2	4	1
1946 ... ..	19	12	12	4	2	4	1
1947 ... ..	19	14	12	5	2	4	1
1948 ... ..	21	15	13	5	3	4	1
1949 ... ..	24	17	15	5	3	4	1
1950 ... ..	25*	17	17	5	3	4	1

\* Including one mobile Dispensary.



TABLE No. 95.—ANNUAL RETURN OF BEDS AVAILABLE IN THE IN-PATIENT UNITS  
AT THE END OF THE YEAR 1950

UNIT	1st. Class		2nd. Class		3rd. Class Paying		3rd. Class Gratis			Beds for Surgery	TOTAL
	F.	M.	F.	M.	F.	M.	F.	M.	Children		
Almaza Sanatorium ... ..	—	10	—	72	—	132	—	520	—	128	862
Abbassia C. D. Hospital...	—	—	28	—	52	—	328	—	80	30	518
Giza Village Sanatorium...	—	—	—	—	—	—	—	155	—	—	155
Alexandria Sanatorium ...	—	—	—	—	—	7	30	79	10	—	126
Mahalla El-Kobra Sana- torium ... ..	—	—	2	6	3	6	52	88	4	—	161
Suez Ch. D. Hospital ...	—	—	1	1	2	2	22	22	—	—	50
Damanhour Dispensary ...	—	—	—	—	6	6	20	72	—	—	104
Tanta                   ,,   ...	—	—	—	—	—	—	—	20	—	—	20
Mansoura               ,,   ...	—	—	—	—	—	—	10	15	—	—	25
Shebin El-Kom   ,,   ...	—	—	—	—	—	—	9	11	—	—	20
Zagazig               ,,   ...	—	—	—	—	—	—	30	35	—	—	65
Damietta             ,,   ...	—	—	2	2	4	4	69	69	—	—	150
Sherbin               ,,   ...	—	—	—	—	—	—	—	30	—	—	30
Zifta                  ,,   ...	—	—	—	—	—	—	—	26	—	—	26
Fayoum               ,,   ...	—	—	—	—	—	—	—	30	—	—	30
Beni Suef            ,,   ...	—	—	—	—	—	—	10	15	—	—	25
Minia                 ,,   ...	—	—	—	—	—	—	6	14	—	—	20
Mellawi              ,,   ...	—	—	—	—	—	—	17	18	—	—	35
Assiut                ,,   ...	—	—	—	—	—	—	25	50	—	—	75
Souhag               ,,   ...	—	—	—	—	—	—	4	20	—	—	24
Aswan                 ,,   ...	—	—	—	—	—	—	7	15	—	—	22
Maritime San. ( Pulmonary	—	—	—	2	8	11	31	89	12	—	153
Port-Said        { T.B. Bones	—	—	—	—	—	—	—	7	—	—	7
Maritime San. Alexandria	—	—	—	—	—	—	24	25	51	—	100
Bones Hosp. Helwan ...	—	—	1	3	4	12	60	65	55	—	200
Helwan Preventorium ...	—	—	—	—	—	—	—	—	90	—	90
Marg                  ,,   ...	—	—	—	—	—	—	—	—	50	—	50
Mellawi               ,,   ...	—	—	—	—	—	—	—	—	55	—	55
Assiut                ,,   ...	—	—	—	—	—	—	—	—	50	—	50
Convalescents Settlement, Marg ... ..	—	—	—	—	—	—	—	82	—	—	82
								Families			Families
TOTAL ... ..	—	10	34	86	79	180	754	1,572	457	158	3,330

TABLE NO. 96.—ACCOUNT OF EXPENDITURES OF THE CHEST  
DISEASES UNITS—DURING THE YEAR 1950

Unit	Salaries	Equipment Instruments & Drugs	Diets	Rent, Water, Light and Sewage	Transport	Expenses Miscellaneous	TOTAL	Grants		
	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.	Sums paid		No. of Families
								L.E.	M.	
Boulaq Disp. ...	2,832	329	—	—	930	13	4,104	11,480	426	410
Mubtadayan „ ...	3,162	276	—	257	666	17	4,378	5,937	693	404
Khalifa „ ...	2,880	1,501	—	251	101	199	4,932	12,978	297	460
Damanhour „ ...	1,580	5,688	173	141	159	5	7,746	1,625	698	153
Alexandria „ ...	1,618	140	—	214	382	29	2,383	5,411	337	220
Tanta „ ...	1,854	508	1,036	129	48	20	3,595	1,040	163	67
Mansoura „ ...	1,982	56	1,117	70	45	40	3,310	1,116	400	193
Shebin El-Kom „ ...	1,504	456	80	339	2	70	2,451	1,508	915	76
Mehalla El-Kobra „ ...	1,168	424	6	141	127	19	1,885	1,583	125	123
Zagazig „ ...	3,301	1	1,308	257	3	151	5,021	1,709	624	145
Damietta „ ...	4,544	431	6,326	204	279	158	11,912	2,467	260	263
Port Said „ ...	5,527	2,749	7,615	462	22	57	16,432	1,851	770	92
Sherbin „ ...	1,533	212	467	97	137	16	2,462	1,662	566	87
Zifta „ ...	3,527	5	911	264	14	26	2,747	711	414	36
Suez „ ...	2,156	13	3,044	20	67	38	5,338	1,032	176	63
Fayoum „ ...	1,997	492	1,685	169	226	50	4,619	1,313	080	115
Beni Suef „ ...	1,757	—	995	197	1	32	2,982	652	533	38
Minia „ ...	1,842	222	1,025	229	60	32	3,410	878	954	57
Mellawi „ ...	596	—	224	—	15	4	839	—	—	—
Assiut „ ...	2,452	2,293	2,800	262	222	143	8,172	2,030	398	92
Souhag „ ...	1,246	600	1,294	300	2	118	3,560	1,200	455	82
Qena „ ...	1,141	—	—	99	36	317	1,593	419	708	20
Aswan „ ...	1,502	337	1,337	334	30	42	3,582	1,459	343	49
Almaza Sanat ...	32,155	1,240	49,136	12,593	381	10,910	106,415	—	—	—
Abbassia Hospital ...	19,771	13,452	25,019	1,794	428	1,973	62,431	—	—	—
Giza San....	7,309	1,150	14,103	25	222	506	23,315	—	—	—
Alexandria „ ...	4,961	2,239	6,558	283	4	121	14,166	—	—	—
Mehalla El-Kobra „ ...	6,282	3,650	9,597	2,420	219	59	22,227	—	—	—
Alexandria M. „ ...	2,609	263	4,970	137	6	317	8,302	—	—	—
Helwan Disp. ...	7,287	2,343	9,046	289	78	27	19,070	—	—	—
Marg Colony ...	9,742	59	902	51	93	148	10,995	—	—	—
Helwan Prev. ...	2,742	143	1,571	11	33	90	4,590	—	—	—
Marg „ ...	420	—	284	—	—	—	704	—	—	—
Assiut „ ...	840	267	693	123	11	139	2,073	—	—	—
B.C.G. Mission ...	6,267	153	—	1,500	—	2,710	10,630	—	—	—
<b>TOTAL ...</b>	<b>150,086</b>	<b>41,692</b>	<b>153,322</b>	<b>23,662</b>	<b>5,049</b>	<b>18,596</b>	<b>392,407</b>	<b>60,071</b>	<b>335</b>	<b>3,255</b>



TABLE NO. 97.—ANNUAL DETAILED STATEMENT OF RECEIPTS OF THE UNITS DURING YEAR 1950.

UNIT	Treatment Fees		Deposits from Patients		Fees of Official Documents		Deposits from Contractors		Articles sold by Public Auction		Miscellaneous Receipts		TOTAL		GRAND TOTAL	
	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.
Almaza Sanatorium ... ..	9,420	200	2,022	000	15	290	—	—	—	—	2,058	706	13,516	196	—	—
Abbassia Hospital... ..	5,627	800	708	000	1	290	4	—	—	—	92	192	6,433	282	—	—
Giza Sanatorium ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mehalla el Kobra „ ... ..	1,174	700	240	000	—	—	—	—	—	—	15	687	1,430	387	—	—
Alexandria „ ... ..	323	300	27	000	—	—	2	600	—	—	25	739	378	639	—	—
Suez Hospital ... ..	418	675	84	000	0	860	4	545	—	—	52	974	561	054	—	—
Damanhour „ ... ..	—	—	—	—	0	860	0	400	—	—	—	—	1	269	—	—
Damietta „ ... ..	365	000	39	000	0	920	11	005	—	—	70	886	486	811	—	—
Port-Saïd Sanatorium ... ..	831	600	174	000	—	—	—	—	—	—	42	179	1,047	779	—	—
Helwan Bones Hospital ... ..	322	400	225	000	0	860	—	—	—	—	39	646	587	996	—	—
TOTAL ... ..	18,483	675	3,519	000	20	089	22	550	—	—	2,398	5,009	24,443	34	24,443	314

RECEIPTS OF THE VARIOUS WORKSHOPS AT THE T.B. CONVALESCENT SETTLEMENT AT MARG

UNIT	Carpenters Workshop		Tailors Workshop		Shoemakers Workshop		Tinsmiths Workshop		Brooms Workshop		Miscellaneous Receipts		TOTAL		GRAND TOTAL	
	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.	L.E.	M.
Marg Convalescents ... ..	205	143	976	670	940	600	310	689	8	723	—	—	2,441	825	2,441	825

TABLE No. 98.—ANNUAL RETURN OF CASES ADMITTED TO MARG T.B. CONVALESCENTS COLONY DURING THE YEAR 1950.

Month	No. of new Convalescents	Ages of Convalescents					Occupations of Convalescents						Convalescents still under treatment	Relationship to Contacts							Occasional Diseases		Discharged		Referred to Sanatorium		REMARKS
		Below 20 Years	20-29 Years	30-39 Years	40-49 Years	Above 50 Years	Carpenter	Tailor	Tinsmith	Shoe-Maker	Peasant	Other Industries		Father	Mother	Wife	Sons	Brothers	Sisters	Other Relatives	Clinic	A.P.	Convales.	Contacts	Convales.	Contacts	
January ... ..	2	—	1	1	—	—	—	1	—	1	—	—	—	—	—	1	4	—	—	—	175	22	—	—	—	—	
February ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	170	22	1	—	1	—	
March ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	189	11	1	3	1	—	
April ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	225	3	—	—	—	—	
May ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	281	2	—	—	1	—	
June ... ..	2	—	1	—	1	—	—	—	—	1	—	1	—	—	1	1	—	2	1	—	285	—	—	—	—	—	
July ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	264	—	—	—	—	—	
August ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	188	5	—	—	—	—	
September ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	131	4	1	3	—	—	
October ... ..	2	—	—	1	1	—	—	—	2	—	—	—	—	—	—	2	3	—	—	—	231	2	—	—	1	—	
November ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	169	12	—	—	3	—	
December ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	173	9	—	—	—	—	
TOTAL ... ..	6	—	2	2	2	—	—	1	2	2	—	1	—	—	1	4	7	2	1	—	2481	92	3	6	7	—	

No. of Convales. on 1st. Jan. 1950 ... .. 79  
 " " admitted during the year 6  
 " " " " on 31st December, 1950 82  
 No. of Convales. discharged during the year 3





TABLE No. 99.— ANNUAL RETURN OF THE WORK OF

Preventoria		NEW CHILDREN																						
		No. of new children	AGES																					
			less than 1 year		1-2 years		2-3 years		3-4 years		4-5 years		5-6 years		6-7 years		7-8 years		8-9 years					
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Helwan	...	...	...	...	...	...	86	14	11	5	6	—	1	3	2	3	3	2	2	2	4	4	5	3
Marg	...	...	...	...	...	...	32	—	—	—	—	—	—	—	—	—	—	11	5	7	—	1	—	1
Assiut	...	...	...	...	...	...	34	5	2	1	—	2	—	1	2	2	—	—	2	3	2	2	—	1
Mellawi	...	...	...	...	...	...	8	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
TOTAL	...	...	...	...	...	...	160	19	13	6	6	2	1	4	4	5	4	13	9	12	6	7	5	5

REMARKS: (1) Alexandria Preventorium was joined to Women Society on 1.1.50.  
(2) Mellawi „ was opened within Mellawi chest diseases unit and commenced in November 1950.

	Helwan	Marg	Assiut	Mellawi
Number of Children on 1st. January 1950 ...	74	28	31	—
„ „ admitted during the year ...	86	32	34	8
„ „ discharged „ „ ...	117	16	31	2
„ „ on December 31, 1950... ..	43	44	34	6

TABLE No. 100.—ANNUAL RETURN OF BONE SURGERY UNITS—DURING 1950.

Units		OUT-PATIENT SECTION																			
		New Patients										Old Patients									
		No. of new patients	Ages						Cases				No. of old patients	Cases				Treatment		Minor Operations	X-Ray
			Under 5 years		5-10 years		Above 10 years		Rickets	T.B. Spine	T. B. Bones of Joints	Other diseases		Rickets	T.B. Spine	T. B. Bones of joints	Other diseases	By Electricity	By Ultra violet		
M.	F.	M.	F.	M.	F.	M.	F.	M.					F.							M.	F.
Alexandria Marit. Sanat.	{	305	41	30	45	25	92	72	3	65	94	143	321	2	40	89	190	—	49	10	93
Port-Said Marit. Sanat.	{	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Helwan Bone Hospital	{	953	86	43	106	71	345	302	2	258	274	419	1043	2	312	428	301	—	—	—	—
TOTAL ...		1258	127	73	151	96	437	374	5	323	368	562	1364	4	352	517	491	—	49	10	93

	Alexandria M.S.	Port-Said M.S.	Helwan B.H.
Number of patients on 1st January 1950 ...	94	—	176
„ „ „ admitted during the year ...	117	11	458
„ „ „ discharged „ „ „ ...	115	7	418
„ „ „ on December 31, 1950	96	4	210

Began work in June 1950.



PREVENTORIA DURING THE YEAR 1950.

MITTED																	Diseases attacked children during their residence.						Children Dis-charged		Remarks
				Details regarding relations									Mantoux Test in Child												
0 years		more than 10 Years		Relations.					Condition.																
	F.	M.	F.	Father	Mother	Brother	Sister	Others	Died	Alive	Sputum Neg.	X-Ray pos.	Positive	Negative	Not Done	Skin	Stomach	Enteric	Ophthalmic	Chest	Other diseases	Discharged	Died		
1	2	4	4	46	33	4	2	1	—	86	5	81	5	9	72	8	2	44	20	14	71	102	15		
2	—	3	1	22	5	2	2	1	—	32	—	32	—	6	26	—	—	—	—	—	14	16	—		
2	1	2	3	15	18	—	—	1	1	33	34	—	—	—	34	18	—	—	42	2	34	30	1		
1	—	5	1	2	1	—	—	5	—	8	3	5	8	—	—	—	—	—	3	—	—	1	1		
6	3	14	9	85	57	6	4	8	1	159	42	118	13	15	132	26	2	44	65	16	119	149	17		

IN-PATIENT SECTION

No. of new Patients Admitted	New Patients											Discharged												
	Ages						T.B. Spine	T.B. Knee	T.B. Hip.	T.B. bones joints	Other diseases	No. of pat. Discharged	Result					Treatment		Major Operations	Minor Operations	Plaster	X-Ray	Streptomycin Inj.
	Under 5 years		5-10 years		Obove 10 years								Died	Cured	Stationary	Improved	Discharged in plaster	By Electricity	By Ultra-Violet					
	M.	F.	M.	F.	M.	F.																		
117	20	14	15	11	33	24	50	15	21	25	6	115	3	19	18	39	36	—	66	4	—	226	212	720
11	1	1	—	3	2	4	1	—	2	8	—	7	—	—	4	1	2	1	—	—	—	—	—	314
452	16	3	56	38	195	144	127	129	29	86	181	418	9	254	57	77	21	—	232	25	5	277	943	7647
580	37	18	71	52	230	172	178	44	52	119	187	540	12	273	79	117	59	1	298	29	5	503	1155	8681





TABLE NO. 101.—ANNUAL RETURN OF CHEST DISEASES DISPENSARIES DURING THE YEAR 1950

[illegible]





TABLE NO. 102—ANNUAL RETURN OF SANATORIA, CHEST DISEASES DISPENSARIES AND BRANCHES DURING THE YEAR 1950

[illegible]

## CHEST DISEASES SANATORIA AND HOSPITALS

[illegible]

Statment	Almaza Sanat.	Abbassia Hosp.	Giza Sanat.	Alexandria Sanat.	Mehalla el Kobra Sanat.	in-Patient Sections in Dispensaries																
						Damanhou,	Tanta	Mansoura	Shebin el-Kom	Zagazig	Damiatta	Port-Said	Sherbin	Zifta	Suez	Fayoum	Beni Suef	Minia	Mellawi	Assiut	Souhag	Aswan
No. of Pts. on 1st. Jan. 1950 ... ..	832	464	109	112	144	—	14	21	—	16	115	137	27	21	46	24	20	11	—	61	20	10
No. of Pts. admitted during the year ...	1853	1158	213	318	473	49	66	59	18	95	681	511	28	80	72	81	46	72	55	156	79	74
No. of Pts. discharged during the year ...	1894	1162	243	324	460	1	64	56	6	60	655	520	55	78	72	75	40	67	17	150	76	72
No. of patients on December 31, 1950 ...	791	460	139	106	157	48	16	24	12	51	141	120	7	23	46	36	26	16	38	67	23	21
Average duration of stay in days ... ..	136	173	167	131	130	3	96	160	20	95	65	99	108	95	210	131	168	95	30	139	112	87







TABLE No. 103.—MOBILE MASS X RAY SURVEY UNIT ATTACHED TO KHALIFA DISPENSARY SIN

MONTH	Total No. Exam.	RESULT OF EXAM.			A g								
		Pos.	Susp.	Neg.	Less than 5 years						From 5 —		
					M.			F.			M.		
					+	?	—	+	?	—	+	?	—
YEAR 1949													
January ...	—	—	—	—	—	—	—	—	—	—	—	—	—
February ...	—	—	—	—	—	—	—	—	—	—	—	—	—
March * ...	520	7	—	513	—	—	7	—	—	33	—	—	78
April ...	490	14	—	482	—	—	4	—	—	11	—	—	38
May ...	1,968	13	62	1,893	—	—	—	—	—	—	—	3	152
June... ..	524	2	27	495	—	—	—	—	—	—	—	12	192
July... ..	2,518	11	60	2,447	—	—	—	—	—	—	1	2	220
August ...	5,913	21	117	5,775	—	—	—	—	—	1	3	13	602
September † ...	2,574	13	42	2,519	—	—	—	—	—	—	—	—	40
October ...	4,608	26	91	4,491	—	—	—	—	—	—	—	—	1
November ...													
December ...	1,009	2	57	950	—	—	—	—	—	—	—	—	
Apparatus out of order													
TOTAL ...	20,130	109	456	19,565	—	—	11	—	—	45	4	30	1,330
YEAR 1950													
January ...	651	3	23	625	—	—	—	—	—	—	—	—	7
February ...	3,291	16	144	3,131	—	—	—	—	—	—	—	—	—
March ...	7,899	40	219	7,640	—	2	26	—	—	—	—	4	153
April ‡ ...	2,879	12	113	2,754	—	3	144	—	4	187	2	17	341
May ...	5,415	22	138	5,255	—	—	14	—	2	4	—	—	96
June... ..	2,188	11	42	2,134	—	—	48	—	—	43	2	—	314
July... ..	1,161	5	52	1,104	—	—	9	—	—	4	—	2	162
August ...	7,774	18	128	7,628	—	—	452	—	1	266	—	13	1,173
September ...	9,836	2	57	9,777	—	—	534	—	—	300	—	7	931
October ...	3,731	3	27	3,701	—	—	13	—	—	32	—	7	677
November ...	3,881	—	31	3,850	—	—	49	—	—	67	—	13	606
December ...	2,381	—	36	2,345	—	—	20	—	—	15	—	10	545
TOTAL ...	51,687	132	1,011	49,944	—	5	1,319	—	7	918	4	73	5,005
GRAND TOTAL	71,217	241	1,467	69,509	—	5	1,330	—	7	963	8	103	6,341

\* The apparatus began its work in 1949 at the Agricultural and Industrial Exhibition.

† 3 Positive cases discovered by Screen

‡ Sindibis Village.



STARTED WORK IN MARCH 1949.—THEN ATTACHED TO MUSTADYAN DISPENSARY FROM 28-9-1950

GROUPS														
5 years			From 15 — 30 years						From 30 — 50 years					
F.			M.			F.			M.			F.		
+	?	—	+	?	—	+	?	—	+	?	—	+	?	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	53	7	—	87	—	—	64	—	—	72	—	—	45
1	—	55	4	—	63	1	—	74	5	—	55	3	—	81
—	—	—	10	45	1,560	—	—	—	3	10	159	—	—	—
—	—	—	1	13	252	1	—	6	—	1	36	—	—	7
—	4	145	3	33	1,385	2	—	212	4	17	436	—	—	2
—	4	197	14	70	3,806	—	1	119	4	22	980	—	—	11
—	—	52	11	27	1,749	—	—	5	2	14	621	—	—	—
—	—	4	24	88	4,369	—	—	—	1	3	111	—	—	—
e examined.														
—	—	—	2	42	800	—	—	—	—	13	142	—	—	—
1	8	506	76	318	14,071	4	1	480	19	80	2,612	3	—	146
—	—	—	3	12	503	—	—	1	—	8	108	—	—	—
—	—	—	7	72	1,527	—	—	—	9	56	1,396	—	—	—
—	—	—	10	66	2,721	—	—	4	26	113	4,031	—	—	1
1	22	285	3	12	487	1	21	507	4	8	279	—	14	315
—	—	47	12	39	2,380	1	8	203	8	77	2,311	—	3	57
1	—	188	1	13	541	2	4	179	1	17	580	2	1	130
—	1	78	2	16	288	—	6	107	2	16	279	—	4	51
1	8	508	6	39	1,912	3	13	675	4	34	1,421	2	14	519
—	1	458	1	16	2,769	—	9	961	1	15	2,377	—	7	643
—	9	414	—	—	867	1	3	437	1	2	584	—	3	316
—	10	608	—	2	1,215	—	—	381	—	2	463	—	3	215
—	22	1,078	—	2	225	—	1	89	—	1	267	—	—	43
3	73	3,664	45	284	15,435	8	65	3,544	56	342	14,096	4	49	2,290
4	81	4,170	121	602	29,506	12	66	4,024	75	429	16,708	7	49	2,436

TABLE No. 103.—MOBILE MASS X RAY SURVEY UNIT ATTACHED TO KHALIFA DISPENSARY SIN

MONTH							PROF						
	From 50 years and above						Employees			Students			
	M.			F.									
	+	?	—	+	?	—	+	?	—	+	?	—	—
YEAR 1949													
January ...	—	—	—	—	—	—	—	—	—	—	—	—	—
February ...	—	—	—	—	—	—	—	—	—	—	—	—	—
March ...	—	—	48	—	—	26	1	—	66	1	—	—	11
April ...	—	—	66	—	—	35	5	—	57	2	—	—	7
May ...	—	4	22	—	—	—	3	13	172	10	49	1,72	—
June ...	—	1	1	—	—	—	1	3	63	1	24	43	—
July ...	1	4	41	—	—	—	—	1	—	—	—	—	—
August ...	—	7	58	—	—	1	—	—	2	—	—	—	—
September ...	—	1	46	—	—	—	—	—	—	—	—	—	—
October ...	1	—	6	—	—	—	26	91	4,475	—	—	—	—
November ...	—	—	—	—	—	—	—	—	—	—	—	—	—
December ...	—	2	8	—	—	—	—	27	507	2	30	44	—
Apparatus out of order—													
TOTAL ...	2	19	296	—	—	62	36	135	5,342	16	103	2,79	—
YEAR 1950													
January ...	—	3	6	—	—	—	3	22	559	—	1	5	—
February ...	—	16	208	—	—	—	16	144	3,131	—	—	—	—
March ...	4	34	694	—	—	—	37	186	6,146	—	6	18	—
April ...	1	7	97	—	5	112	—	1	52	—	1	1	—
May ...	1	9	140	—	—	3	—	3	250	—	2	8	—
June ...	1	6	79	1	2	32	—	23	517	1	1	39	—
July ...	1	7	102	—	—	24	4	20	210	—	—	12	—
August ...	—	7	497	2	4	205	2	16	1,267	1	9	1,15	—
September ...	—	1	550	—	1	254	—	1	566	—	3	1,09	—
October ...	—	2	212	1	1	149	—	1	163	—	10	1,56	—
November ...	—	1	179	—	—	67	—	1	116	—	24	2,43	—
December ...	—	—	46	—	—	17	—	1	96	—	33	2,00	—
TOTAL ...	8	93	2,810	4	13	863	62	419	13,073	2	90	9,11	—
GRAND TOTAL	10	112	3,106	4	13	925	98	554	18,415	18	193	11,90	—



STARTED WORK IN MARCH 1949.—THEN ATTACHED TO MUFTADAYAN DISPENSARY FROM 28-9-1950. (Contd.)

IONS

Workmen			Farmers			Food Vendors			Other vendors			No Occupation		
+	?	—	+	?	—	+	?	—	+	?	—	+	?	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	110	—	—	93	—	—	36	—	—	37	—	—	60
—	—	134	2	—	76	—	—	39	2	—	46	3	—	53
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	59	2,447	—	—	—	—	—	—	—	—	—	—	—	—
21	117	5,771	—	—	—	—	—	—	—	—	—	—	—	2
13	42	2,519	—	—	—	—	—	—	—	—	—	—	—	—
—	—	1	—	—	—	—	—	8	—	—	—	—	—	—
One examined.														
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
50	218	10,982	2	—	169	—	—	83	2	—	83	3	—	115
—	—	8	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	27	1,303	—	—	—	—	—	2	—	—	—	—	—	—
—	—	33	11	88	2,109	—	—	15	—	1	26	—	22	500
11	110	4,355	—	—	—	—	—	—	—	—	—	11	23	569
1	8	458	—	6	410	—	1	81	2	—	62	7	4	215
1	12	332	—	2	134	—	—	39	—	6	59	—	12	201
5	31	1,712	2	19	1,066	—	5	526	—	3	419	8	45	1,488
2	23	4,152	—	7	1,188	—	3	433	—	—	370	—	20	1,974
1	4	448	—	1	234	—	1	72	—	—	36	2	10	1,186
—	1	392	—	2	206	—	—	92	—	—	81	—	3	530
—	2	156	—	—	61	—	—	13	—	—	6	—	—	7
24	218	13,349	13	125	5,408	—	10	1,273	2	10	1,059	29	139	6,670
74	436	24,331	15	125	5,577	—	10	1,356	4	10	1,142	32	139	6,785

TABLE No. 103.—MOBILE MASS X RAY SURVEY UNIT ATTACHED TO KHALIFA DISPENSARY SIN

MONTH	R A C E				R E L I G I O N											
	White		Dark		Moslem			Christian			Jew			Others		
	Total	+	Total	+	+	?	—	+	?	—	+	?	—	+	?	—
YEAR 1949																
January ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
February ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
March ...	101	7	19	—	7	—	504	—	—	9	—	—	—	—	—	—
April ...	489	14	7	—	13	—	465	1	—	17	—	—	—	—	—	—
May ...	1,860	11	108	2	13	62	1,893	—	—	—	—	—	—	—	—	—
June ...	509	2	15	—	2	27	494	—	—	1	—	—	—	—	—	—
July ...	2,443	11	75	—	11	57	2,173	—	2	249	—	1	25	—	—	—
August ...	5,690	21	223	—	18	107	5,426	3	10	334	—	—	15	—	—	—
September ...	2,535	13	39	—	13	37	2,198	—	5	319	—	—	2	—	—	—
October ...	4,479	16	129	—	26	88	4,351	—	3	140	—	—	—	—	—	—
November ...																
December ...	1,001	2	8	—	2	51	886	—	6	64	—	—	—	—	—	—
Apparatus out of order																
TOTAL ...	19,507	107	623	2	105	429	18,390	4	26	1,133	—	1	42	—	—	—
YEAR 1950																
January ...	616	3	25	—	3	23	601	—	—	24	—	—	—	—	—	—
February ...	3,222	16	69	—	16	136	3,014	—	8	117	—	—	—	—	—	—
March ...	7,73	39	167	1	40	205	7,171	—	14	466	—	—	3	—	—	—
April ...	1,879	12	—	—	12	111	2,694	—	2	60	—	—	—	—	—	—
May ...	5,409	22	6	—	19	123	4,805	3	15	449	—	—	1	—	—	—
June ...	2,188	11	—	—	11	42	2,111	—	1	23	—	—	—	—	—	—
July ...	1,161	5	—	—	5	52	1,090	—	—	14	—	—	—	—	—	—
August ...	7,672	18	102	—	18	124	7,610	—	4	18	—	—	—	—	—	—
September ...	9,836	2	—	—	1	57	9,762	1	—	15	—	—	—	—	—	—
October ...	3,731	3	—	—	3	27	3,684	—	—	17	—	—	—	—	—	—
November ...	3,881	—	—	—	—	31	3,884	—	—	6	—	—	—	—	—	—
December ...	2,381	—	—	—	—	34	2,319	—	2	26	—	—	—	—	—	—
TOTAL ...	50,718	131	369	1	128	965	48,705	4	46	1,235	—	—	4	—	—	—
GRAND TOTAL	70,225	238	992	3	233	1,394	67,095	8	72	2,368	—	1	46	—	—	—



STARTED WORK IN MARCH 1949.—THEN ATTACHED TO MUBTADAYAN DISPENSARY FROM 28-9-1950. (Contd.)

[illegible]

## Chapter XI.—Venereal and Skin Diseases

According to tables Nos. 104 and 111., a total of 270,188 persons attended the Venereal and Skin Diseases Units during 1950 suffering from one or another of these diseases, as against 260,996 patients during the pervious year, or a slight increase over those of that year. Since recognising the good and effective treatment given to patients at these units, the public no longer hesitate in seeking treatment at these units which exist now in all parts of the country.

### 1. *Gonorrhoea* :

Tables Nos. 107 and 113 give the number of acute gonorrhoea patients during the year as 3472 as compared with 5,487 during 1949. The significant decrease in the number of patients this year is attributed to the interest taken by patients in treatment and the use of penicillin and sulpha in treatment. Gonorrhoea infections are thus cured within one day.

### 2. *Syphilis* :

Tables Nos. 106 and 112 shows that 1,815 syphilis cases attended the V.D. units this year as against 3013 cases during 1949. The sharp fall in the number of attendances this year indicates that the public now take better protective measures and, in the event of contracting the disease, rush to these units for treatment. Moreover, Procain penicillin G. in oil with 2% aluminium monostearate have been used with great success in the treatment of syphilis.

### 3. *Other Venereal Diseases* :

The number of patients suffering from other venereal diseases was, according to tables Nos. 104 and 111, 3770 as against 5,954 in 1949. The same causes responsible for the decrease in gonorrhoea and syphilis patients equally apply to other venereal diseases patients.

### *Technical Works* :

All means of propaganda are employed to draw the attention of the people to the serious consequences of venereal diseases and the deformation they produce on the body.

All V.D. units are now supplied with procain penicillin G with 2% aluminium monostearate for the treatment of acute gonorrhoea.

This drug has abortive effect in curing the disease as demonstrated by the apparent fall in the number of patients compared with their corresponding number in the previous year.

The same drug is also supplied to the units for the treatment of syphilis. It is anticipated that it will have the same effect as in gonorrhoea.

Great efforts have been made in the treatment of tinea, a wide spread disease affecting in particular pupils of elementary and primary schools. X. Ray apparatuses have been provided in 26 V.D. units for the purpose. Treatment was commenced in some of the units in September of this year.

Benzyl benzoate is now supplied to V.D. units as well as 100 Rural Health Centres for the treatment of scabies, another wide spread disease.

Two mobile units have been provided in Minia and Sharkia Provinces. Hod El Marsoud and Gabbary hospitals which were formerly assigned for the detention and treatment of public women, have been converted in 1949 into V.D. hospitals with in-patient departments where V.D. and other skin diseases are treated by modern methods.

A special accommodation, with a private entrance, has been provided in each of the two hospitals for the accommodation and treatment of women suffering from V.D. and who are arrested by the police.

Every endeavour is made to increase the number of V.D. units. There are at present 39 units besides the V.D. hospitals at Hod El Marsoud and Gabbari. There is also a prophylactic centre near Ezbekieh Gardens, Cairo, under the supervision of a medical officer for the protection of persons exposed to V.D. infection.



TABLE No 104.—NEW PATIENTS AND VISITS TO THE SKIN AND VENEREAL DISEASES HOSPITALS DURING 1950.

		Cairo Hospitals										Alexandria Hospitals									
		Syph.		Gon.		Skin		Other dis.		TOTAL		Syph.		Gon.		Skin		Other dis.		TOTAL	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
In-patients	Public... ..	68	67	49	108	72	45	—	—	189	220	74	58	—	—	36	22	3	1	113	81
	Prostitutes...	—	1	—	4	—	—	—	—	—	5	—	224	—	60	—	—	—	44	—	328
	Sailors... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TOTAL ...	68	68	49	112	72	45	—	—	189	225	74	282	—	60	36	22	3	45	113	409
Out-patients	Public... ..	118	169	181	539	1,134	2,551	75	155	1,508	3,414	78	92	25	7	2,054	4,821	383	240	3,540	5,150
	Prostitutes...	—	31	—	34	—	—	—	—	—	65	—	—	—	—	—	—	—	—	—	—
	Sailors... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	TOTAL ...	118	200	181	573	1,134	2,551	75	155	1,508	3,479	78	92	25	7	2,054	4,821	383	240	2,540	5,160
Total of in and out-patients ...		186	268	230	685	1,206	2,596	75	155	1,697	3,704	152	374	25	67	3,090	4,843	386	285	3,653	5,569
Number of Visits ... ..		916	1,992	804	4,864	1,432	3,487	38	23	3,190	6,366	297	571	24	60	4,642	6,871	383	232	5,346	7,734

TABLE NO. 105— EXPENDITURES DURING 1950.

	Salaries		Equipments		Instruments and Medicine		Diet		Sundry Epenses		Total Expenditure	
	L.E.	Mms	L.E.	Mms	L.E.	Mms	L.E.	Mms	L.E.	Mms	L.E.	Mms
Cairo Hosp ... ..	5,550	304	227	810	601	600	921	056	218	538	7,519	308
Alexandria Hosp ...	2,132	576	211	800	310	—	749	359	177	171	3,580	906
TOTAL ... ..	<b>7,682</b>	<b>880</b>	<b>439</b>	<b>610</b>	<b>911</b>	<b>600</b>	<b>1,670</b>	<b>415</b>	<b>395</b>	<b>709</b>	<b>11,100</b>	<b>214</b>

TABLE NO. 106—NEW CASES OF SYPHILIS IN VENEREAL DISEASES HOSPITALS DURING 1950.

	Early Cases						Late Cases								TOTAL	
	Primary		Second.		TOTAL		Tert.		Latent		Nervous		Herd.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cairo Hosp ...	21	20	49	42	70	62	11	3	69	171	15	—	21	32	186	268
Alexandria Hosp.	11	5	15	16	26	21	19	7	77	313	25	19	5	14	152	374
TOTAL ... ..	32	25	64	58	96	83	30	10	146	434	40	19	26	46	338	642

TABLE NO. 107—NEW CASES OF GONORRHOEA DURING 1950.

	Acute		Chronic		TOTAL	
	M.	F.	M.	F.	M.	F.
Cairo H sp. ... ..	54	56	176	629	<b>230</b>	<b>685</b>
Alex. Hosp. ... ..	25	1	—	66	<b>25</b>	<b>67</b>
TOTAL ... ..	<b>79</b>	<b>57</b>	<b>176</b>	<b>695</b>	<b>255</b>	<b>752</b>

TABLE NO. 108—INFECTED CONTACTS

	Syph		Gon.	
	M.	F.	M.	F.
Cairo Hosp. ... ..	50	76	35	50
Alex. Hosp. ... ..	—	—	—	—
TOTAL ... ..	<b>50</b>	<b>76</b>	<b>35</b>	<b>50</b>



TABLE NO. 109—CASES OF VENEREAL DISEASES CURED DURING 1950.

			Outpatients				Inpatients			
			Syph.		Gon.		Syph.		Gon	
Cairo Hosp.	...	...	—	—	107	190	20	21	30	66
Alex. Hosp.	...	...	42	66	24	—	73	136	—	37
TOTAL ...			<b>42</b>	<b>66</b>	<b>131</b>	<b>190</b>	<b>93</b>	<b>157</b>	<b>30</b>	<b>103</b>

TABLE NO. 110—CASES OF SKIN DISEASES CURED DURING 1950.

			Scabies		Ringworms	
			M.	F.	M.	F.
Cairo Hosp.	...	...	194	334	38	29
Alexandria Hosp.	...	...	168	503	63	49
TOTAL ...			<b>362</b>	<b>537</b>	<b>101</b>	<b>78</b>

TABLE No. III.—NEW CASES AND VISITS

Locality of Clinic	NEW CASES									
	Syphilis		Gonorrhoea		Skin Diseases		Other Dis.		TOTAL	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Sayed Zeinab ... ..	95	97	247	161	2,707	3,434	22	25	3,071	3,711
Shubra ... ..	136	130	323	84	3,849	18,351	65	193	4,373	18,738
Gamalia ... ..	193	123	503	305	987	1,923	113	321	1,796	2,671
Abbassia ... ..	8	63	127	56	2,782	3,633	60	30	3,055	3,788
Old Cairo ... ..	14	19	37	37	917	2,110	—	95	968	2,262
Khalifa ... ..	42	16	47	53	1,591	8,209	—	—	1,680	8,225
Heliopolis ... ..	38	13	160	14	1,225	3,108	—	—	1,423	3,137
Port-Said ... ..	37	64	61	27	2,025	2,832	34	88	2,157	3,011
Port Said Health Centre	47	82	21	19	1,933	2,846	2	33	2,003	2,988
Ismailia ... ..	67	98	34	15	1,550	1,864	2	60	1,453	2,033
Suez ... ..	72	72	164	89	3,071	4,428	49	585	3,356	5,177
Damietta ... ..	144	258	5	6	3,178	8,105	6	6	3,333	8,317
Benha ... ..	27	35	57	44	2,282	2,423	34	58	2,400	2,560
Shebin-el-Kom ... ..	66	48	50	30	4,775	8,237	—	—	4,891	8,315
Menouf ... ..	31	22	3	—	2,092	4,923	2	—	2,128	4,941
Tanta ... ..	330	39	114	9	3,771	4,324	9	5	4,224	4,729
Mehalla-el-Kobra ... ..	74	94	33	22	2,061	3,679	21	12	2,189	3,801
Kafr El Zayat ... ..	104	142	31	23	2,585	2,853	—	—	2,720	3,010
Zagazig ... ..	82	85	53	18	3,350	3,210	4	2	3,489	3,312
Facus ... ..	55	120	9	8	1,534	1,893	—	—	1,598	2,022
Mansoura ... ..	133	232	47	6	2,191	2,997	79	722	2,450	3,955
Mit-Ghamr ... ..	78	158	2	1	3,571	4,329	8	8	3,659	4,490
Damanhour ... ..	84	108	118	82	3,865	9,080	9	—	4,076	9,255
Kafr-el-Dawar ... ..	21	28	6	9	1,066	1,785	—	—	1,093	1,822
Giza... ..	63	86	73	9	814	3,307	10	7	960	3,401
Fayoum ... ..	122	245	39	26	2,035	2,518	—	—	2,197	2,788
Sennuris ... ..	34	88	19	13	1,331	3,101	2	5	1,386	3,266
Beni-Suef ... ..	63	84	89	7	3,256	3,400	6	—	3,414	3,499
Minia ... ..	135	204	59	1	2,011	2,394	—	1	2,205	2,600
Samalut ... ..	69	86	10	13	619	840	—	—	598	94
Assiut ... ..	195	406	95	—	2,009	3,971	2	—	2,301	4,377
Deirout ... ..	62	99	2	—	2,383	3,095	16	21	2,463	3,211
Gerga ... ..	111	128	56	20	4,963	9,860	—	—	5,130	10,000
Tahta ... ..	224	350	1	—	1,070	3,427	—	—	1,295	3,777
Souhag ... ..	155	198	11	—	1,326	1,309	—	—	1,492	1,500
Qena ... ..	35	46	10	6	1,981	3,132	—	—	2,026	3,188
Nag Hammadi ... ..	70	193	25	2	975	1,218	1	—	1,071	1,411
Luxor ... ..	95	94	29	4	726	1,532	1	1	851	1,633
Aswan ... ..	84	101	67	11	808	1,518	23	11	982	1,641
<b>TOTAL ... ..</b>	<b>3,573</b>	<b>4,908</b>	<b>2,837</b>	<b>1,215</b>	<b>84,965</b>	<b>155,198</b>	<b>580</b>	<b>2289</b>	<b>91,956</b>	<b>163,600</b>



THE SKIN AND VENEREAL DISEASES CLINICS DURING 1950.

NUMBER OF VISITS								TOTAL	
Syphilis		Gonorrhoea		Skin Diseases		Other Dis.		M.	F.
M.	F.	M.	F.	M.	F.	M.	F.		
3,888	7,135	128	445	861	2,649	3	14	4,830	10,243
3,708	4,768	434	328	1,260	3,018	697	1,314	6,099	9,428
7,959	9,777	1,016	1,226	1,543	2,144	377	815	10,895	13,962
2,106	2,753	166	67	958	1,323	7	—	3,237	4,643
1,071	1,560	128	146	326	1,366	—	36	1,525	3,108
1,222	2,230	45	26	1,751	10,059	—	—	3,018	12,315
694	257	83	19	1,121	1,667	—	—	1,898	1,943
1,617	3,789	188	51	1,034	1,315	—	—	2,839	5,155
1,026	2,803	48	423	798	1,320	—	60	1,872	4,606
1,247	2,598	51	115	825	1,429	—	12	2,123	4,154
2,196	3,614	659	517	755	1,003	118	729	3,728	5,863
2,525	5,847	55	73	724	1,825	—	—	3,304	7,745
568	768	102	104	665	1,188	20	45	1,355	2,105
2,078	2,218	235	99	689	1,350	—	—	3,002	3,667
1,107	1,896	17	—	1,211	1,263	—	—	2,335	4,159
3,766	15,018	314	24	2,324	2,011	12	3	11,416	17,056
2,601	4,724	100	79	846	2,119	24	—	3,571	6,922
3,541	4,610	60	40	1,513	1,285	—	—	5,114	5,935
1,366	1,889	79	34	1,201	1,113	8	3	2,654	3,039
1,330	4,682	9	13	1,179	1,711	—	—	2,518	6,406
3,248	5,642	144	220	275	487	91	553	3,768	6,902
2,541	7,141	28	10	1,210	1,499	3	4	3,782	8,654
2,095	2,892	89	19	2,065	3,765	—	—	4,249	6,676
426	1,035	4	2	208	260	—	—	638	1,297
3,190	4,415	73	26	293	811	5	—	2,561	5,252
2,668	8,870	36	54	376	544	—	—	3,080	9,468
2,290	3,600	22	17	957	2,239	1	6	2,270	5,862
2,525	4,423	270	2	1,166	1,472	23	—	3,984	5,897
1,499	6,898	185	2	585	825	3	—	5,272	7,725
2,436	3,902	31	53	283	391	—	—	2,750	4,346
3,267	12,726	14	—	1,350	2,174	2	—	6,631	14,900
2,767	5,384	1	—	1,825	2,395	7	15	4,700	7,794
3,014	5,644	120	29	2,119	2,867	—	—	5,253	8,540
3,112	7,047	2	—	43	140	—	—	3,157	7,187
3,667	9,495	11	—	429	406	—	—	6,107	9,901
3,570	5,989	29	58	459	773	—	—	2,058	6,820
2,396	8,668	29	1	148	148	—	—	2,573	8,817
3,862	7,425	110	82	676	1,104	—	—	4,648	8,614
3,893	5,728	171	22	391	874	1	—	2,456	6,624
<b>1,132</b>	<b>199,863</b>	<b>5,286</b>	<b>4,426</b>	<b>36,442</b>	<b>65,832</b>	<b>1400</b>	<b>3,609</b>	<b>147,260</b>	<b>273,730</b>

TABLE NO. 112.—CASES OF SYPHILIS IN VENEREAL DISEASES CLINICS DURING 1950

Locality of Clinic	Acute Syphilis						Other Stages.								TOTAL	
	Primary		Secondary		TOTAL		Tert		Latent		Nervous		Herd.		TOTAL	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Sayeda Zeinab ...	31	—	22	25	53	25	9	5	28	40	—	—	5	27	95	97
Shubra ... ..	35	8	20	14	55	22	8	13	54	75	—	1	19	19	136	130
Gamalia ... ..	40	9	77	42	117	51	10	2	59	61	1	—	6	9	193	123
Abbassia ... ..	16	6	14	13	30	19	3	5	47	36	2	—	4	3	86	63
Old Cairo ... ..	6	—	4	6	10	6	—	1	3	11	—	—	1	1	14	19
Khalifa ... ..	8	1	5	2	13	3	12	—	8	8	2	—	7	5	42	16
Heliopolis. ... ..	15	—	7	3	22	3	5	4	11	5	—	1	—	—	38	13
Port Said ... ..	—	—	8	7	8	7	6	3	16	44	3	—	4	10	37	64
Port-Said Health Centre ... ..	1	—	9	7	10	7	1	—	21	57	—	2	15	16	47	82
Ismailia ... ..	12	—	6	7	18	7	5	3	39	73	—	—	5	15	67	98
Suez... ..	24	3	23	10	47	13	8	5	10	35	3	2	4	17	72	72
Damietta ... ..	8	2	14	15	22	17	8	11	75	172	17	12	22	46	144	258
Benha ... ..	3	3	7	1	10	4	1	2	15	26	—	—	1	3	27	35
Shebin-el-Kom ... ..	3	1	10	7	13	8	3	—	38	27	—	—	12	13	66	48
Menouf ... ..	—	—	3	1	3	1	10	4	13	17	3	—	2	—	31	22
Tanta ... ..	14	5	17	12	31	17	20	11	201	300	—	—	78	65	330	393
Mehalla-el-Kobra... ..	10	4	18	12	28	16	12	11	17	53	1	—	16	14	74	94
Kafr el Zayat ... ..	3	—	6	13	9	13	1	—	77	123	2	—	15	6	104	142
Zagazig ... ..	16	3	26	33	42	36	20	13	10	34	1	—	9	2	82	85
Facus. ... ..	2	—	22	32	24	32	3	—	7	45	—	—	21	43	55	120
Mansoura ... ..	4	—	9	10	13	10	21	13	81	181	—	—	18	28	133	232
Mit-Ghamr ... ..	3	6	7	10	10	16	12	4	31	107	3	—	22	31	78	158
Damanhour ... ..	11	2	25	22	36	24	8	12	28	47	3	2	9	23	84	108
Kafr El Dawar ... ..	—	—	1	2	1	2	4	3	12	22	—	—	4	1	21	28
Giza ... ..	16	1	8	11	24	12	7	4	15	44	—	—	17	26	63	86
Fayoum ... ..	9	5	11	9	20	14	10	11	74	196	—	—	18	24	122	245
Sennouris ... ..	—	1	22	21	2	22	1	2	7	52	—	—	4	12	34	88
Beni-Suef ... ..	26	1	14	9	40	10	9	11	11	52	—	—	3	11	63	84
Minia ... ..	4	—	16	7	20	7	6	6	79	162	—	3	30	26	135	204
Semalut ... ..	4	—	11	7	15	7	2	1	37	58	—	—	15	20	69	86
Assiut ... ..	11	—	7	7	18	7	8	5	139	337	—	—	30	57	195	406
Deirout ... ..	—	1	3	5	3	6	5	4	45	80	—	—	9	9	62	99
Gerga ... ..	9	1	52	100	61	101	—	1	35	8	2	—	13	18	111	128
Tahta ... ..	1	—	8	14	9	14	21	19	135	279	3	1	56	37	224	350
Souhag ... ..	10	11	17	13	27	24	10	8	101	146	1	—	16	20	155	198
Qena ... ..	3	—	9	—	12	—	6	15	7	21	—	1	10	9	35	46
Nag-Hammadi ... ..	7	—	12	8	19	8	17	16	18	144	2	—	14	25	70	193
Luxor ... ..	40	3	13	29	53	32	3	4	30	31	—	—	9	27	95	94
Aswan ... ..	37	—	4	4	41	4	7	3	19	77	3	1	14	16	84	101
<b>TOTAL ... ..</b>	<b>442</b>	<b>77</b>	<b>567</b>	<b>550</b>	<b>1009</b>	<b>627</b>	<b>302</b>	<b>235</b>	<b>1653</b>	<b>3286</b>	<b>52</b>	<b>26</b>	<b>557</b>	<b>734</b>	<b>3573</b>	<b>4908</b>



**TABLE No. 113.—NEW CASES OF GONORRHOEA IN VENEREAL DISEASES DURING 1950.**

Locality of Clinics	Acute		Chronic Clinics		TOTAL	
	M.	F.	M.	F.	M.	F.
Sayed a Zeinab ... ..	236	11	11	150	247	161
Shubra ... ..	277	61	46	23	323	84
Gamalia ... ..	494	304	9	1	503	305
Abbassia... ..	123	54	4	2	127	56
Old Cairo ... ..	21	26	16	11	37	37
Khalifa ... ..	31	2	16	51	47	53
Heliopolis ... ..	160	14	—	—	160	14
Port-Saïd ... ..	60	24	1	3	61	27
Port Said Health Centre ... ..	21	19	—	—	21	19
Ismailia ... ..	32	3	2	12	34	15
Suez ... ..	146	89	18	—	164	89
Damietta ... ..	3	4	2	2	5	6
Benha ... ..	57	44	—	—	57	44
Shebin-el-Kom ... ..	46	30	4	—	50	30
Menouf ... ..	3	—	—	—	3	—
Tanta ... ..	62	6	52	3	114	9
Mehalla-el-Kobra ... ..	32	22	1	—	33	22
Kafr El Zayat ... ..	23	2	8	21	31	23
Zagazig ... ..	53	17	—	1	53	18
Facus ... ..	9	8	—	—	9	8
Mansoura ... ..	47	6	—	—	47	6
Mit-Ghamr ... ..	2	1	—	—	2	1
Damanhour ... ..	75	57	43	5	118	62
Kafr el Dawar ... ..	5	1	1	8	6	9
Giza ... ..	68	9	5	—	73	9
Fayoum ... ..	19	4	20	22	39	26
Sennuris ... ..	15	12	4	1	19	13
Beni-Suef ... ..	34	3	55	4	89	7
Minia ... ..	59	1	—	—	59	1
Samalut ... ..	8	3	2	15	10	18
Assiut ... ..	95	—	—	—	95	—
Deirout ... ..	1	—	1	—	2	—
Gerga ... ..	44	16	12	4	56	20
Tahta ... ..	1	—	—	—	1	—
Souhag ... ..	11	—	—	—	11	—
Qena ... ..	3	2	7	4	10	6
Nag Hammadi ... ..	22	2	3	—	25	2
Luxor ... ..	22	—	7	4	29	4
Aswan ... ..	58	1	9	10	67	11
<b>TOTAL ... ..</b>	<b>2,478</b>	<b>858</b>	<b>359</b>	<b>357</b>	<b>2,837</b>	<b>1,215</b>

TABLE NO. 114.—CASES CURED IN VENEREAL DISEASES CLINICS  
DURING 1950.

Locality of Clinic	Cases Cured			
	Syphilis		Gonorrhoea	
	M.	F.	M.	F.
Sayedā Zeinab ... ..	2	2	82	47
Shubra ... ..	2	3	312	119
Gamalia ... ..	28	45	471	303
Abbassia ... ..	3	3	101	46
Old Cairo ... ..	1	2	15	10
Khalifa ... ..	1	2	31	2
Heliopolis ... ..	—	—	181	22
Port-Saïd ... ..	1	5	34	10
Port-Saïd Health Centre...	—	5	11	32
Ismailia ... ..	—	—	28	9
Seuz ... ..	4	15	73	48
Damietta ... ..	17	44	2	4
Benha ... ..	—	—	40	24
Shebin-el-Kom .. ..	—	—	8	2
Menouf ... ..	1	—	1	—
Tanta ... ..	—	—	68	4
Mehalla-el-Kobra ... ..	—	—	10	8
Kafr El Zayat ... ..	4	9	16	20
Zagazig ... ..	5	17	25	17
Facus ... ..	5	14	9	8
Mansoura ... ..	7	14	41	4
Mit-Ghamr ... ..	—	—	—	—
Damanhour ... ..	6	—	95	57
Kafr el Dawar... ..	—	—	4	7
Giza ... ..	3	2	51	12
Fayoum ... ..	—	—	—	—
Sennuris ... ..	3	8	19	12
Beni-Suef ... ..	3	2	54	5
Minia ... ..	20	21	58	—
Samalut ... ..	2	1	5	4
Assiut ... ..	—	—	97	—
Deirout ... ..	—	—	—	—
Gerga ... ..	21	37	49	17
Tahta ... ..	7	25	1	—
Souhag ... ..	2	10	9	—
Qena ... ..	4	3	8	6
Nag Hammadi ... ..	—	—	—	—
Luxor ... ..	12	15	27	1
Aswan... ..	3	3	63	1
<b>TOTAL ... ..</b>	<b>167</b>	<b>307</b>	<b>2,099</b>	<b>861</b>



TABLE NO. 115.— NEW CASES OF SCABIES DURING 1950.

Locality of Clinic	Scabies		Locality of Clinic	Scabies	
	M.	F.		M.	F.
			<i>Brought Forward</i>	8,144	9,573
Sayeda Zeinab ... ..	186	169			
Shubra ... ..	449	1,193	Mansoura ... ..	432	496
Gamalia ... ..	169	177	Mit-Ghamr ... ..	659	642
Abbassia ... ..	453	366	Damanhour ... ..	776	2,289
Old Cairo ... ..	151	162	Kafr El Dawar ... ..	424	221
Khalifa ... ..	182	580	Giza ... ..	46	143
Heliopolis ... ..	128	230	Fayoum ... ..	323	239
Port-Saïd ... ..	329	384	Sennuris ... ..	184	257
Port-Saïd Health Centre ...	201	255	Beni Suef ... ..	372	290
Ismailia ... ..	126	111	Minia ... ..	210	231
Suez ... ..	233	205	Samalut ... ..	88	106
Damietta ... ..	304	563	Assiut ... ..	541	821
Benha ... ..	710	709	Deirout ... ..	369	289
Shebin El-Kom... ..	2,060	1,987	Gerga ... ..	379	518
Menouf ... ..	136	317	Tahta ... ..	152	159
Tanta ... ..	192	135	Souhag... ..	121	70
Mehalla El-Kobra ... ..	573	626	Qena ... ..	188	215
Kafr El-Zayat ... ..	236	272	Nag Hammadi ... ..	120	83
Zagazig ... ..	925	754	Luxor ... ..	181	367
Facus ... ..	401	378	Aswan... ..	116	141
<b>TOTAL ... ..</b>	<b>8,144</b>	<b>9,573</b>	<b>TOTAL ...</b>	<b>13,825</b>	<b>17,159</b>

TABLE NO. 116.— NEW CASES AND NUMBER OF VISITS TO MOBILE  
' UNITS DURING 1950.

Units	New Cases		Number of Visits	
	M.	F.	M.	F.
Ibrahimia ... ..	1,020	1,230	470	735
Saft El Khamar ...	96	61	6	3
<b>TOTAL ... ..</b>	<b>1,116</b>	<b>1,291</b>	<b>476</b>	<b>738</b>

TABLE NO. 117.—FULL DETAILS.

Units	Scabies				Other Skin Diseases	
	New Cases		Cured Cases			
	M.	F.	M.	F.	M.	F.
Ibrahimia ... ..	251	233	117	131	769	997
Saft El Khamar ...	38	11	—	—	38	11
TOTAL ... ..	289	244	117	131	807	1,008

TABLE NO. 118.—NEW CASES AND VISITS TO SCABIES  
TREATMENT BATH DURING 1950.

New Cases		Number of Visits	
M.	F.	M.	F.
3,244	2,095	5,404	3,694



TABLE NO. 119. —HOSPITALS AND CLINICS FROM  
WHICH PATIENTS WERE FORWARDED DURING 1950.

District	Patients	
	M.	F.
Shubra Clinic ... ..	1,678	1,700
Sayeda Zeinab Clinic	44	22
Gamalia C. ... ..	139	72
Giza C. ... ..	61	21
Old Cairo C. ... ..	3	5
Abbassia ... ..	157	15
Boulaq Health Centre	300	229
Khalifa Clinic ... ..	2	6
Demerdash Hospital...	4	5
Malek Hospital ... ..	18	4
Cairo H. ... ..	7	5
School Hygiene Dept.	16	9
Other Units ... ..	813	2
<b>TOTAL ... ..</b>	<b>3,242</b>	<b>2,095</b>

## Chapter XII. — Mental Health

### *Accommodation and Cases Treated :*

The crowding has become more evident so as to cause anxiety. The number of patients re-admitted in both hospitals during the year under report has also risen. This reflects the policy of discharging patients as soon as they improve which had to be adopted to make room for new admissions.

The number of patients remaining in both hospitals on 1/1/1950 was 5,483 (3,338 males and 2,145 females). Admissions numbered 3,906 cases (2,691 males and 1,215 females) bringing the total patients treated during the year to 9,389 (6,029 males and 3,360 females).

Discharges numbered 3,182 (2,209 males and 973 females). 3 males escaped and 369 died (201 males and 168 females) leaving 5,835 (3,616 males and 2,219 females remaining on 31/12/1950 as against 5,483 (3,338 males and 2,145 females) in the year 1949.

Accommodation remained unchanged ; nor has any change taken place in the number of staff of all categories.

### *Accused Persons Suspected of Insanity :*

Among the cases admitted to Abbassia hospital were 208 (192 males and 16 females) accused persons suspected of insanity sent by the Procurer General for examination and report. 46 males and 2 females were sent back to the parquet as not insane, 30 of whom were accused of theft or attempted theft and embezzlement, 7 of being in possession of narcotics, 6 of murder or attempted murder, and the remainder of different crimes.

Among those found insane, 21 were accused of murder or attempted murder, 42 of assault, 36 of theft and the rest of different crimes.

64 other reports were also sent to the Procurer General about inmates originally admitted as ordinary patients.

### *Discharges :*

Among the discharges were 111 (88 males and 23 females) recovered, 2,559 (1,721 males and 838 females) relieved and 203 (102 males and 101 females) not improved. It is evident that the number of cases recovered is small in comparison with the total cases treated.

### *Deaths :*

It is worth recording that the number of deaths was 201 males and 168 females i.e. 3.90%. This represents a very satisfactory ratio taking into consideration the prevailing conditions of over crowdedness, the shortage of staff and the physical condition of patients on admission.

### *Ages of Patients and Duration of Residence :*

Ages varied between 10 and 90 years while the duration of residence ranged between less than a month and over 40 years.

### *Nationality, Religion and Occupation of Patients :*

Patients from different nationalities, religions and occupations were admitted. They came from all parts of the Country and from the occupied territory of Palestine. Cairo Governorate came first followed by Alexandria and then Gharbia Province.

### *Pellagra :*

1,064 males and 281 females suffering from pellagra were admitted. This represents 39.20% of admissions. The ratio in Khanka Hospital was proportionately very high as the majority of patients admitted to Abbassia Hospital come from the relatively well to do classes who can afford payment of treatment fees.



### *Ophthalmic and Dental Clinics :*

Both clinics have rendered services worthy of mention for the welfare of patients.

### *Artificial Feeding :*

This was carried out 18,744 times in Abbassia and 2,245 in Khanka without accident.

### *Epileptic Fits :*

6,703 fits were recorded during the year in Abbassia and 3,501 in Khanka.

### *Physical Illness :*

7,603 cases were treated in Abbassia and 4,598 in Khanka.

### *Accidents :*

34 major accidents took place in Abbassia and 21 in Khanka.

Minor accidents numbered 551 in Abbassia and 295 in Khanka.

### *Pharmacy :*

40,100 prescriptions were prepared in Abbassia and an almost equal number in Khanka.

### *X Ray Dept :*

238 photos and 327 screenings were made. These were all made in Abbassia, as Khanka Hospital has no X Ray Apparatus.

### *Physical Condition of patients :*

The ratio of those admitted in a poor physical condition in Abbassia was 17.11%  
In Khanka this ratio was 47%.

### *Board of Control :*

Both hospitals sent to the Board thousands of reports on new patients and those recommended for renewal of periods of detention. Thousands of other correspondence for the discharge and admission of patients were also sent.

### *Out-Patient Clinics :*

These have rendered good services to attendants and have well served the purposes for which they were provided. More out-patient clinics are recommended. 414 cases were examined in King's Hospital clinic, 477 in Boulaq Hospital clinic and 4 in Abbassia Hospital.

### *Social Services :*

The Department wishes to place on record the many valuable services rendered by the Social Services Section. Besides the activities of the two social workers in the two out-patient clinics, the supervision of the library and indoor games, films were shown and meetings were held in the two hospitals for the entertainment of the inmates.

## Chapter XIII.—Health Education and Social Services

The year was marked by large scale propaganda activities in connection with the cerebro-spinal fever epidemic and the B.C.G. vaccination campaign.

With regard to the former, propaganda units were rushed to localities where cases were reported. All the available propaganda means were adopted to advise the inhabitants in methods of protection and the protective measures to be taken: notification, isolation and treatment. In this way, it was possible to isolate and suppress the disease in minimum time.

The following data illustrate the activities:

1. Some 50,000 pamphlets on cerebro spinal fever were published and distributed.
2. 20,000 posters were printed and distributed to towns and villages.
3. 15 talks by medical officers were broadcasted in addition to short advices during the news-bulletin.
4. Three representations dealing with the disease were broadcasted.
5. 22,340 lectures were delivered by propaganda units.
6. Assistance of preachers and Imams of mosques was sought to include their sermons advice to listeners.
7. Medical officers and staff of other ministries and departments contributed in propaganda activities against the disease.

### *B.C.G. Vaccination Campaign.*

On the commencement of the B.C.G. vaccination campaign, propaganda activities were directed towards demonstrating the value of the vaccine and persuading the public to profit by it and to pay no attention to rumours against its presumed danger. Public Health Inspectorates were instructed to direct propaganda units at their disposal according to plan of operation of the vaccination teams. 3,490 villages were visited by propaganda units for the purpose. Out of 50,000 pamphlets on the importance of vaccination, 30,000 were distributed. 20,000 posters were printed for hanging in public places in towns and villages. 35 copies of each of two films were produced dealing with this campaign. These were shown by propaganda vehicles and in cinemas.

With the suppression of the cerebro spinal fever epidemic, propaganda units resumed their ordinary activities against infectious diseases. The following are details of these activities :

Daytime propaganda meetings	...	...	...	...	...	...	4,864
Evening        „                „	...	...	...	...	...	...	3,771
Propaganda meetings in markets	...	...	...	...	...	...	937
„                „ army and police barracks	...	...	...	...	...	...	111
„                „ schools	...	...	...	...	...	...	1,510
„                for workmen	...	...	...	...	...	...	364
„                in cinemas	...	...	...	...	...	...	917
„                „ social centres	...	...	...	...	...	...	781

### *Broadcasting :*

Being one of the effective means of health propaganda, arrangements were made with the broadcasting authorities to allow more time and variation for health propaganda broadcasts. During the year, 61 talks on health were broadcasted by competent medical officers of the Ministry as well as 17 theatrical representations.



### *Literature :*

This, too, plays a major role in propaganda activities. Two million and a half copies from 31 pamphlets and sermons dealing with health problems were printed and distributed. 1,500 copies from 24 illustrated posters presenting health advice were printed and distributed to health offices and units for hanging on walls in places frequented by the public. 20,000 copies from each of four booklets on rural health, individual health, parasites and care of mother and babe were also published. Illustrated calendars bearing health maxims were printed for 1951 for distribution on the new year.

### *Cooperation with other Sections of the Ministry :*

1. Much propaganda activities were carried out during the health weeks held in connection with tuberculosis, nutrition, endemic diseases, cerebro spinal fever and flies and summer diseases.

2. During pilgrimage season, a propaganda vehicle was sent to Tor lazaret where 60 lectures were delivered on various diseases, 60 cinema shows given, 92 sermons and 20,000 propaganda publications distributed.

3. Extensive propaganda was carried out within Qaliubia Province urging the inhabitants to attend the units under the compulsory mass examination and treatment campaign against bilharzia.

### *Conferences :*

(a) The Ministry assisted in the social seminar held in Turkey. An exhibition was organised in Constantinople. It was provided with models, posters, illustrations and all publications that reflect the health progress and health propaganda means in use in Egypt. Films were shown to the members and literature distributed.

(b) The Ministry also assisted in the social seminar held in Cairo where similar exhibitions as in the former seminar were displayed.

### *Cooperation with other Countries :*

At the request of the Regional Office of the World Health Organization, the ministry displayed at the Constantinople meeting exhibitions of the health propaganda methods adopted in Egypt. All the various propaganda publications were also displayed. The ministry displayed its efforts in coordinating propaganda activities between government and private departments and institutions.

Most of the Middle East countries were supplied with quantities of propaganda literature. Syria and Lebanon ordered quantities of these publications. Propaganda vehicles have been equipped on the lines of those in use in Egypt and supplied to them.

### *Social Health Services :*

The propaganda section has since last year become responsible for social healthf services rendered by the Ministry.

### *Welfare of Patients in Hospitals :*

Following the success of the meetings held last year for the entertainment of hospital inmates, a sum of L.E. 1,500 was distributed to Cairo hospitals and provincial health inspectorates for the welfare and entertainment of patients.

### *The Social Health Services Office, Assiut :*

1. Investigated 165 patients referred to it by general and district hospitals, child welfare centres, chest diseases dispensaries, ophthalmic hospitals, units of the Ministry of Social Affairs, and private societies.

Investigations carried out by the medical officer, social workers and health visitors revealed :

(a) 108 pregnant complained of frequent abortion or successive death of infants. Blood examination revealed syphilis infection. Of 55 of their husbands referred to the venereal diseases clinic, 41 were returned syphilitic and were provided with treatment facilities.

(b) 23 tuberculosis patients complained of social and financial difficulties. Arrangements were made with charitable societies to extend to them financial aid. Meals were issued to them from public kitchens.

(c) 12 patients required artificial limbs. The Hospital Day Society was requested to supply these.

(d) The remaining cases complained of more than one problem ; poverty, need for specific treatments, etc. These were forwarded to charitable societies for aid and to hospitals for treatment.

2. Health visitors paid visits to 284 houses to instruct mothers and pregnant in principles of hygiene and care of the babe and home.

3. Propaganda activities are now planned to meet the environmental requirements of the region as disclosed by investigations carried out by the office.

4. A health museum was set up where models were displayed. The various classes of the public were invited to visit it. 400 visits were paid to it by students, workmen, etc.

5. 23 meetings were held for the entertainment of patients in hospitals.

6. The office approached all government and private bodies having social and medical activities with a view to co-ordinating their efforts for the benefit of the inhabitants.



## PART III—TREATMENT

### Chapter XIV.—General Hospitals

#### *Number of Hospitals :*

The number of hospitals in operation during the year was 93 of which 22 were located in governorates and chief towns of provinces, 67 in district towns and four out-patient clinics.

#### *Accommodation :*

The total number of beds in hospitals was 8,573 including beds of ophthalmic and ancylostoma branches within hospitals, and 1,221 beds for resident medical and nursing personnel.

#### *Treatment :*

The number of in-patients treated during the year totalled 114,430 and the out-patients numbered 2,556,715 who paid 4,231,300 visits to hospitals.

#### *Surgical Operations :*

A total of 52,006 operations were performed in the in-patient sections and 95,749 in the out-patients as against 46,963 and 76,947 respectively in the previous year.

#### *X-Rays Examination and Treatment :*

Some 28,300 cases were examined and treated by X Rays as against 24,665 cases last year.

#### *Deaths :*

A total of 4,489 deaths were recorded among the 114,430 in-patients treated during the year. This gives a ratio of 3.92% as against 4.06% last year.

TABLE NO. 120.— NUMBER OF HOSPITALS OPERATED BY THE HOSPITALS  
SECTION FROM 1940-1950.

Year	General Hospitals in chief towns of Provinces and Governorates	Hospitals in Bandars of Markazes and important towns	Village Hospitals	Hospitals in the Oases	General diseases O.P. Dispensaries
1940 ... ..	20	51	62	—	3
1941 ... ..	20	52	—	—	3
1942 ... ..	20	52	—	—	4
1943 ... ..	26	52	—	—	3
1944 ... ..	27	53	—	—	2
1945 ... ..	27	53	—	6	2
1946 ... ..	28	61	—	6	2
1947 ... ..	28	56	—	—	4
1948 ... ..	28	56	—	—	5
1949 ... ..	29	56	—	—	5
1950 ... ..	22 *	67	—	—	4

\* The title "General Hospital" is now restricted to hospitals in Governorates and chief towns of provinces, hence the difference in their number this year and the previous year

TABLE No. 121.—STATEMENT OF HOSPITAL ACCOMMODATION

Year	No. of Beds	Comments
1940 ... ..	6,926	In this year Venereal Diseases Hospitals were detached from the Section.
1941 ... ..	6,969	In this year the Village hospitals were detached from the Section
1942 ... ..	6,880	
1943 ... ..	6,363	The Alexandria Hospital was detached this year.
1944 ... ..	6,553	
1945 ... ..	6,663	
1946 ... ..	7,014	
1947 ... ..	6,879	The Frontiers and Demerdash Hospitals were detached this year from the Section.
1948 ... ..	7,171	
1949 ... ..	6,878	The reduction of number of beds this year was due to the Helmieh Zeitoun Hospital being requisitioned by the Ministry of War and Marine.
1950 ... ..	8,573	This number includes beds of Ophthalmic and Ancylostoma Branches within Hospitals.



TABLE No 122.—DISTRIBUTION OF HOSPITAL BEDS

Hospital	1st Class	2nd Class	3rd Class Paying	3rd Class Gratis	Ancy- lostoma branch	Ophth. branch	Total beds for patients	Resident M.Os. & Nurses	Grand Total
King's ... ..	—	—	—	346	—	—	346	109	455
Helmiet-el-Zeitoun ... ..	Requisitioned by the Ministry of War & Marine								
Boulaq ... ..	—	—	—	32	—	6	38	32	70
Incurable Diseases at Helwan ...	—	—	—	170	—	—	170	128	298
Bab el Shaaria ... ..	—	—	—	136	—	—	136	34	170
Port Said ... ..	2	2	16	262	—	—	282	43	325
Suez ... ..	8	15	—	164	20	25	232	31	263
Damietta ... ..	—	2	—	88	20	37	147	13	160
Damanhour ... ..	—	4	—	94	—	—	98	15	113
Tanta ... ..	11	22	—	314	20	—	377	90	467
Mansoura ... ..	—	—	—	207	20	—	222	28	250
Mit Ghamr ... ..	—	—	—	47	20	12	79	11	94
Zagazig ... ..	1	3	—	220	—	—	224	20	248
Shebin-el-Kom ... ..	—	2	—	104	—	—	106	12	112
Benha ... ..	—	—	—	71	—	—	71	11	83
Qaliub ... ..	—	—	—	85	—	—	85	8	93
Fayoum ... ..	—	—	—	93	—	—	93	10	102
Beni-Suef ... ..	—	—	—	114	20	—	134	8	147
Minia ... ..	—	1	—	89	—	—	90	37	129
Fikria ... ..	—	—	—	28	20	13	61	8	6
Maghagha ... ..	In-Patient department not yet started								
Assiut ... ..	—	4	—	192	20	—	216	17	233
Mallawi ... ..	—	—	—	48	20	20	88	14	102
Souhag ... ..	—	2	—	87	—	—	89	29	118
Tahta ... ..	—	—	—	33	—	—	33	5	38
Qena ... ..	—	1	—	74	20	—	65	12	107
Luxor ... ..	4	3	—	81	20	25	133	15	148
Esna ... ..	—	—	—	68	—	23	91	14	105
Aswan ... ..	1	2	—	48	20	25	96	3	99
Shubra-el-Kheima ... ..	—	—	—	22	—	—	22	3	25
Ismailia ... ..	—	2	—	90	20	12	124	13	140
Delingat ... ..	—	—	—	29	20	12	61	1	68
Kafr-el-Dawar ... ..	—	—	—	108	20	12	140	11	151
Itay el Baroud ... ..	In-Patient department not yet started								
Rosetta ... ..	—	—	—	29	20	12	61	8	69
Shoubrakhit ... ..	—	—	—	54	20	12	86	8	94
Edfina ... ..	—	—	—	44	—	—	44	6	50
Kom Hamada ... ..	—	—	—	29	20	11	60	9	69
Mahmoudia ... ..	—	—	—	21	—	—	21	4	25
Abu Hommos ... ..	—	—	—	27	20	—	47	7	54
Desouk ... ..	—	—	—	54	20	13	87	8	95
Behout ... ..	In-Patient department not yet started								
Mehalla-el-Kobra ... ..	—	—	—	114	20	—	134	14	148
Samanoud ... ..	—	—	—	46	—	10	56	8	64
Tayeba ... ..	—	—	—	32	20	15	63	7	74
Sherbin ... ..	—	—	—	31	20	12	67	9	72
Zifta ... ..	—	—	—	45	—	—	45	11	56
Kafr-el-Sheikh ... ..	—	2	—	60	—	—	62	7	69
Al Absheet Dispensary ... ..	Out-Patient dispensary								
Fowa ... ..	—	—	—	34	20	8	62	6	68
Kafr-el-Zayat ... ..	—	—	—	32	—	8	40	10	50
Biala ... ..	In-Patient department not yet started								
Faraskour ... ..	—	—	—	31	20	8	59	7	66
Simbellawein ... ..	—	—	—	20	20	12	52	11	63
Manzala ... ..	—	—	—	41	20	—	61	11	72
Aga ... ..	—	—	—	44	20	8	72	7	79
Dikernes ... ..	—	—	—	66	20	12	98	11	109

TABLE No. 122 (contd.)

Hospital	1st Class	2nd Class	3rd Class Paying	3rd Class Gratis	Ancy- lostoma branch	Ophth.	Total beds for patients	Resi- dent M. Os & Nurses	Grand Total
Shawa Dispensary ... ..									
Out-Patient Dispensary									
Belbeis ... ..	—	—	—	24	20	12	56	13	69
Facous ... ..	—	—	—	33	20	12	65	11	76
Minia-el-Kamh ... ..	—	—	—	32	20	8	60	10	70
Hehya ... ..									
In-Patient Department not yet started									
Taftish-el-Wadi Clinic ... ..									
Out-Patient Dispensary									
Inshas ... ..	—	2	2	29	—	20	53	11	64
Tala ... ..	—	—	—	30	20	12	62	7	69
Ashmoun ... ..	—	—	—	54	20	12	86	9	95
Menouf ... ..	—	—	—	60	20	16	96	11	107
Zawyet el Na'oura ... ..	—	—	—	33	20	14	67	9	76
Shobin el Kanater ... ..	—	—	—	27	20	12	59	10	69
Saff ... ..	—	—	—	31	20	12	63	7	70
Ayat ... ..	—	—	—	49	20	16	85	10	95
Itsa ... ..	—	—	—	19	20	12	51	5	65
Wasta ... ..	—	—	—	13	20	12	45	8	53
Beba ... ..	—	—	—	35	20	12	67	10	77
Beni-Mazar ... ..	—	—	—	40	20	14	74	15	89
Fashn ... ..	—	—	—	26	20	12	58	8	66
Samalcut ... ..	—	—	—	71	20	—	91	10	101
Deircut ... ..	—	—	—	30	20	12	62	10	72
Bidari ... ..	—	—	—	27	20	10	57	7	64
Sahel Selim ... ..	—	—	—	27	20	8	55	7	62
Manfalout ... ..	—	—	—	38	—	—	38	5	43
Abu-tig ... ..	—	—	—	36	20	12	68	9	77
Akhmim ... ..	—	—	—	31	20	12	63	4	67
Baliana ... ..	—	—	—	24	20	12	56	7	63
Gerga ... ..	—	—	—	50	20	12	82	9	91
Dishna... ..	—	—	—	25	20	8	53	9	62
Kous ... ..	—	—	—	33	20	12	65	7	72
Mata'ana Dispensary ... ..									
Out-Patient Dispensary									
Nag' Hamadi ... ..	—	—	—	28	20	14	62	9	71
Kom-Ombo... ..	—	—	—	25	—	—	25	4	29
Edfou ... ..	—	—	—	27	20	14	61	5	66
Ineiba... ..	—	—	—	11	—	—	11	1	12
Irr Hospital Boat ... ..	—	—	—	—	—	—	—	—	—
GRAND TOTAL ... ..	27	69	18	5,421	1,120	697	7,352	1,221	8,573



*Treatment :*

The following table No. 123 gives the number of patients treated in hospitals, during the last five years.

Year	In patients	Outpatients	No. of visits to O.P. Depts.
<b>1946</b>	103,496	2,285,035	3,920,413
<b>1947</b>	92,699	1,952,519	3,363,931
<b>1948</b>	99,092	2,165,007	3,520,316
<b>1949</b>	104,732	2,286,893	4,098,140
<b>1950</b>	114,430	2,556,715	4,231,300

*Operations ;*

TABLE NO. 124—OPERATIONS PERFORMED IN HOSPITALS DURING THE LAST FIVE YEARS.

Year	Operations for in-patients	Operations for out-patients	TOTAL
<b>1946</b>	40,454	79,977	<b>120,431</b>
<b>1947</b>	39,346	74,326	<b>113,672</b>
<b>1948</b>	39,628	73,604	<b>113,232</b>
<b>1949</b>	46,963	76,947	<b>123,910</b>
<b>1950</b>	52,006	95,742	<b>147,755</b>

*X-Ray Examinations :*

TABLE NO. 125—X RAY EXAMINATIONS UNDERTAKEN DURING THE LAST FIVE YEARS.

Year	X Ray Examinations
<b>1946</b> ...	29,309
<b>1947</b> ...	25,304
<b>1948</b> ...	27,248
<b>1949</b> ...	24,665
<b>1950</b> ...	28,300

*Deaths.*

TABLE NO. 126.—IN PATIENTS TREATED AT HOSPITALS  
AND NUMBER AND PERCENTAGE OF DEATHS AMONG THEM  
DURING THE LAST FIVE YEARS

Year	Number of patients treated	Number of deaths	Percentage
1946 ... ..	103,496	3,453	3.3
1947 ... ..	92,699	4,693	5.06
1948 ... ..	99,092	3,723	3.75
1949 ... ..	104,732	4,258	4.06
1950 ... ..	114,430	4,489	3.92

*Veneréa Diseases.*

TABLE NO. 127.—FEMALE PATIENTS TREATED IN  
GENERAL AND DISTRICT HOSPITALS DURING 1950

Gonorrhoea	Syphilis	Other diseases	TOTAL
213	300	—	<b>513</b>

TABLE NO. 128.—TOTAL PATIENTS TRATED FOR V.D.  
AT THE GEN. AND DISTRICT HOSPITALS  
DURING THE YEAR 1950

	Gonorrhœa	Syphilis	TOTAL
In-patients ...	2	366	<b>368</b>
Out-patients ...	4106	12,803	<b>16,909</b>



## Chapter XV.—Ophthalmic Hospitals

### *New Units :*

Branches : Behout - Teh El-Baroud - Sennouris.

This brings the total number of units to :	Permanent	91
	Travelling	15
		<b>106</b>

### *Clinical Work :*

The following table shows the clinical work done during 1950 as compared with that of 1949.

Table No. 123

	1949	1950
New Patients ... ..	1,287,666	1,445,921
Out-patients ... ..	5,436,740	5,698,972
Number of out-patient visits ...	6,774,156	7,201,525
Operations ... ..	207,190	210,773
Ophthalmias ... ..	305,140	313,064

### *Blindness :*

The number of cases of blindness including cataract cases was 41,289 or a ratio of 2.7% of the total patients examined. While the number of cases of blindness excluding cataract cases was 38,792 or a ratio of 2.5%

### *Other Services :*

1. Ophthalmologists pay regular visits to the following institutions and hospitals to examine and treat ophthalmic cases :

- Leprosy Hospitals at Sioufia and Abu-Zaabal.
- Mental Diseases hospitals at Abbassia and Khanka
- Fever Hospitals at Abbassia and Embaba.
- Convalescents colony at Marg.
- Children's preventoria at Giza and Marg.
- Mataria Dispensary.
- Chronic Disease Hospital at Helwan.

2. From time to time, ophthalmologists are sent to Arish, Tor and the oases to examine the inhabitants and treat their eye diseases. Ophthalmologists also accompany the medical mission sent to the Hedjaz during pilgrimage to treat pilgrims.

3. Medical officers of other ministries are allowed to attend ophthalmic hospitals to profit by modern technical researches and to be trained in the performance of the various ophthalmic operations.

4. Ophthalmic units of other ministries and departments are provided with ophthalmologists who have been technically trained in ophthalmic hospitals.

5. Assistant midwives and health visitors of rural health centres are trained in ophthalmic treatment so that they can render first aid to villagers and advise them in cases of ophthalmias, etc.

#### *Nursing in ophthalmic Units :*

The Ministry is pursuing its policy of replacing male attendants in ophthalmic units by nurses.

#### *Accommodation :*

The number of beds in ophthalmic units was 2,412. More beds are provided where space in in-patient sections permits.

#### *Post Graduate Course :*

Post graduate courses in ophthalmology are organised for fresh graduates studying for the Diploma in ophthalmic medicine and surgery at Cairo University.

#### *Ophthalmic Library :*

The circulating ophthalmic library, with its headquarters at Rod El Farag ophthalmic hospital, is constantly supplied with old and modern references for the benefit of junior ophthalmologists in ophthalmic units and to keep them acquainted with technical developments.

#### *Apparatus and Instruments :*

The Ministry keeps ophthalmic units provided with modern apparatus and instruments, thus keeping pace with new developments in the ophthalmic field.



## Chapter XVI.—Pharmacies

### *Private Pharmacies :*

45 permits for new private pharmacies were granted this year by the Ministry. Approval was given for the transfer of ownership of 23 pharmacies some of which were owned by non-pharmacists.

### *Night Service Pharmacies :*

Four night service pharmacies were in operation this year as against two in the previous year. These dispensed 12,421 prescriptions, exclusive of patented medicines which are dispensed without prescriptions.

### *Agents :*

21 permits for agents having depots and one for an agent without a depot were granted this year.

### *Registration of Egyptian Specialities :*

91 permits were granted for the preparation of Egyptian specialities and 18 specialities were refused registration. This brings the total of registered specialities to 1,746

### *Pharmaceutical Laboratories :*

Seven permits for pharmaceutical laboratories were granted this year.

### *Application of the law :*

Out of 173 contraventions served this year, 101 were for trading in or being in possession of poisonous substances and drugs without permits ; 3 for practising pharmacy without a licence and 69 were against pharmacists and assistant pharmacists.

### *Poisonous Drug Stores (Schedules 1 and 2) :*

Four permits were granted this year : (One in each of Gharbia, Menoufia, Damietta and Fayoum).

### *Schedule IV Drug Stores :*

18 permits were granted : 9 in Cairo, 5 in Alexandria, 3 in Gharbia and one in Port-Said.

### *Schedule V Drug Stores :*

Seven permits were granted : 4 in Cairo, 2 in Aswan and 1 in Alexandria. One in Cairo has since been withdrawn.

### *Schedule XI Drug Stores :*

13 permits were granted : 3 in Assiut, 2 in each of Gharbia and Menoufia and one in each of Menoufia, Qaliubia, Dakahlia, Canal, Aswan and Minia.

Table No. 130 gives quantities of stupefacients imported into Egypt and exported therefrom during 1950.

TABLE NO. 130

Drug	Quantity Imported	Quantity Exported
Opium and its preparations	24.036 kgs.	—
Morphine and its salts	2.174 „	—
Cocaine and its salts	1.050 „	—

Quantities of stupefacients confiscated for illicit import and export :

Opium	3,680 kgs.
Cannabis Indica	17,734 kgs.
Heroin	636 grms.
Cocaine	347 „

Quantities of stupefacients consumed for medicinal purposes :

Opium and its preparations	24.676 kgs.
Morphine and its Salts	1.652 „
Cocaine „ „ „	0.640 grms.

## Chapter XVII.—Universities Hospitals

### *Manial University Hospital :*

The accommodation remains unchanged as in the previous year, namely 1,449 beds.

### *In-Patients Department :*

A total of 22,118 in-patients were admitted to the various departments during the year or 1,689 more patients than the preceding year. Of this number, 16,733, were discharged as cured, improved or at their own request as against 15,982 in 1949. 4,076 were transferred to the outpatients department for further treatment and 205 were referred to other hospitals. Deaths totalled 896 or a ratio of 4.1 per cent as against 718 deaths and a ratio of 4.2 per cent in 1949.

A new department has been provided in February 1950 in the hospital to accommodate cases involved in accidents. Of 480 cases admitted, 357 were cured and 94 died.

### *Out-Patients :*

The out-patients totalled 916,945 (382,867 new and 534,078 old) or 17,016 out-patients more than the previous year when the out-patients consisted of 338,202 new and 561,727 old. A good feature is the decrease in out-patients suffering from tuberculosis, surgical, urinary, bone and dental diseases. Medical, nervous and tropical diseases cases are on the increase.

### *Diagnosis of in-patient medical diseases :*

The following are details of the ten principal headings under which fall the diagnosis of medical diseases treated within the in-patient departments :

- (1) Respiratory system diseases numbered 2,180 (1,647 males and 533 females). 159 deaths or 7.3 per cent were recorded (124 males and 35 females).
- (2) Digestive system diseases numbered 2,185 (1,487 males and 698 females). 122 deaths or 5.6 per cent were recorded (98 males and 24 females).
- (3) Diseases of the Cardiovascular system numbered 3,552 (2,258 males and 1,294 females). 444 deaths or 12.5 per cent were recorded (308 males and 136 females).
- (4) Diseases of the Uro-genital organs numbered 878 (711 males and 167 females). 78 deaths or 8.9 per cent were recorded (66 males and 12 females).
- (5) Diseases of the central nervous system numbered 1,523 (1,124 males and 399 females). 91 deaths or 6 per cent were recorded (74 males and 17 females).
- (6) Diseases of the blood, lymphatics and spleen numbered 906 (652 males and 254 females). 64 deaths or 7.1 per cent were recorded (49 males and 15 females).
- (7) Diseases of the metabolism and endocrine glands numbered 617 (386 males and 231 females). 30 deaths were recorded (22 males and 8 females).
- (8) Diseases of the joints and bones numbered 459 (244 males and 215 females). Two deaths were recorded.
- (9) Infectious diseases and fevers numbered 107 (82 males and 25 females). Two male and three female deaths were recorded.
- (10) Miscellaneous diseases : ear, eye, obstetric, skin, etc., numbered 231 (152 males and 79 females). 31 deaths (25 males and 6 females) were recorded.

### *Kasr el Aini Hospital :*

The number of beds is the same as last year, i.e. 1,250. Patients admitted to the hospital totalled 21,572 or 224 patients more than last year.



### *Casualty Cases :*

A total of 4,045 casualty cases were admitted to Kasr el Aini Hospital during the year as against 5,158 in 1949. Of this number, 3,679 were discharged as cured and 376 died. Motor accidents accounted for 681 cases, falls, from heights and stairs, accounted for 1,331 cases. Tram accidents accounted for 238 cases. Burns and scalds accounted for 439 cases. Deaths among casualty cases were : 63 from motor cars, 35 from tram, 73 from falls and 151 from burns and scalds.

### *Discharges :*

Of 19,999 patients discharged during the year, 12,329 were cured, 6,905 were referred to the out-patient department or other hospitals for further treatment. 765 died or 3.8 per cent. This is a satisfactory ratio if we remember that 376 of these deaths were casualty cases.

Surgical cases treated during the year totalled 14,785 (10,829 males and 3,956 females). Deaths totalled 1,135 or 7 per cent (826 males and 309 females).

## ALEXANDRIA UNIVERSITY HOSPITALS

### *Central Hospital :*

#### *Accommodation :*

202 beds were added this year, bringing the total accommodation to 817 beds or 32 beds more than its original strength before the establishment of the Faculty of Medicine.

#### *In-patients :*

The total number of in-patients treated during the year was 20,993 or 3,287 in patients more than the previous year.

Surgical and orthopaedic cases numbered 10,326 or almost half the in-patients; medical cases 4,883, and gynaecological and obstetric cases 3,477.

19,974 in-patients were discharged as cured, improved or at their own request.. Deaths totalled 970 or 4.8 per cent (655 males and 315 females).

Diagnosis of medical diseases cases revealed that respiratory system diseases accounted for 486 cases, digestive system diseases for 288 ; cardiovascular system diseases for 710 cases ; urogenital system diseases for 62 cases ; central nervous system diseases for 404 cases ; diseases of the blood, lymphatics and spleen for 200 cases ; diseases of the metabolism and endocrine glands for 108 cases ; diseases of the joints and bones for 80 cases ; infectious diseases and fevers for 7 cases and sundry diseases for 413 cases. Deaths from medical diseases totalled 202 or 7.3 per cent (149 males and 53 females).

Surgical cases totalled 5,120 (3,718 males and 1,402 females). Deaths from surgical diseases were 256 or 5 per cent (182 males and 74 females).

#### *Out-patients :*

These totalled 742,542 (220,662 new and 521,880 old) as against 733,928 out patients in 1949 (232,303 new and 501,625 old). The ophthalmic department had the greater number of out-patients, *i.e.* 239,378 followed by the surgical department with 202,135 out-patients and the medical diseases department with 180,714 out-patients.

For more details, please refer to the Annual Report of the Universities Hospitals Department

## PART IV.—ENDEMIC DISEASES

### Chapter XVIII—Ancylostoma and Bilharzia Treatment

#### I. Statistical summary of treatment activities during the year.

The following table No.131 is a statistical summary of the treatment activities of the Endemic diseases units during 1950 as compared with the previous year :

#### 1.—Out-patients Services :

TABLE No 131

Item	Year	New patients	Bilharzia		Ancylostoma		Ascaris		No. of injections to Bilh. Pats.	Anthelmintic Doses
			positive	%	Positive	%	Positive	%		
Base Units	1950	1,133,567	585,821	51	152,338	14	401,366	35	4,306,583	456,592
	1949	1,133,223	599,735	52	181,814	16	323,367	29	4,322,370	420,296
Village treatment by branch units	1950	5,699	3,864	68	522	9	3,647	66	30,380	2,685
	1949	10,702	2,815	26	225	2	1,717	16	20,495	1,247
Mobile units	1950	50,334	37,830	75	5,565	11	24,950	49.5	140,092	17,181
	1949	34,068	17,929	53	3,631	11	19,032	56	104,672	16,320
Cooperative Centres	1950	65,378	24,350	37	6,225	9.5	17,107	26	174,120	15,712
	1949	49,913	20,855	42	5,823	12	11,649	23	129,791	13,299
School Pupils	1950	30,378	9,897	33	617	2	3,212	11	53,756	3,244
	1949	21,138	7,481	35	285	2	1,755	8	45,346	1,414
Army Recruits	1950	4,910	2,525	51	1,307	27	1,498	31	26,887	2,423
	1949	9,113	4,384	48	1,640	18	2,206	24	40,511	3,573
Workmen	1950	22,498	8,511	33	2,509	11	7,810	35	64,993	9,375
	1949	16,354	7,730	47	858	5	11,130	61	61,496	10,382

#### Meals :

A total of 325,932 meals were distributed to anaemia and pellagra out-patients by the 100 units.

#### Certificates of Freedom From Parasites :

186,070 certificates of freedom from parasitic infection were issued to pupils and workmen. This does not include the large number issued to pupils by the School Health Service of the Ministry of Education.

#### 2.—In-patients :

Of 21,265 in-patients treated during the year, 20,312 were cured and 953 improved as against 17,783, 17,069 and 714 respectively in 1949,



## II.—*New activities started during the year :*

- (a) *New Units*: No new units were provided this year. The number of units remained the same, namely 101.
- (b) *New In-patient Sections*: Two 20-bed inpatient sections were provided in the Endemic Diseases units within Desouk and Nag Hamadi district hospitals and opened for treatment on September 10, 1950. This brings the number of in-patient sections to 99 accommodating 2,020 beds besides a 40-bed section in Tewfikia Endemic and Medical Diseases Hospital (Behera).
- (c) *Movement of Mobile units*: Light travelling and mobile units were transferred to other localities where they were needed most according to the incidence of endemic diseases among their populations.

## III.—*New developments in the services :*

### 1.—Extension of activities of units by :

#### A.—*Village Bases :*

Since endemic diseases examination and treatment units cannot be substantially increased to cope with the large number of patients owing to lack of funds, it was decided to introduce the "village bases" method. A number of laboratory assistants assisted by an equal number of attendants are charged with the work in areas having a population from 5,000 to 10,000 (in one or two neighbouring villages). The laboratory assistant undertakes the recording, examination and treatment of the population under the supervision of the medical officer who visits the area at wide intervals when needed.

The procedure was adopted in villages of Qaliub District. The Ancylostoma Hospital at Qaliub was reinforced by 6 laboratory assistants and 6 attendants and the necessary equipment.

Thirteen villages were involved. The hospital medical officer paid weekly visits to the villages for clinical examination, administering anthelmintic doses and prescribing the doses of injections.

The number of new patients during 1950 was 68,015 as against 16,970 in 1949. The number of anthelmintic doses was 19,582 and the number of injections 171,942 as against 8,467 and 64,594 respectively in 1949.

Thus with an extra L.E.1,000 over the normal expenditures of Qaliub hospital, it was possible to increase its activities threefold by the new procedure.

The average increase of cost per patient was 1.5 milliemes not including cost of medicines. This is a record figure unparalleled elsewhere.

#### B.—*Treatment operations :*

These have been extended to 37 factories and firms. Of 22,492 workmen examined, 8,533 were positive for Bilharzia, 2,509 for Ancylostoma and 7,810 for ascaris. 68,383 Bilharzia injections and 9,442 anthelmintic doses were given.

### 2.—*Use of Stebophen in Bilharzia treatment :*

Stebophen was the drug of choice this year. It was used in the same way as Repodral.

### 3.—*In-Patients Sections :*

The modification of diet for amoebic dysentery in-patients has been authorised in certain units. During the first few days the in-patient is placed on milk diet with the substitution of the bread, milk, and meat with lemon, sugar cane or orange juice. About 3 days later when the patient improves, he is given ordinary diet, milk and nabatine being substituted by tea.

(b) Diets for anaemia and pellagra patients have been improved to include vitamin-rich foods, so as to produce 3,267 calories.



The results were satisfactory. The haemoglobin content has increased and the patient is cured within two weeks as against three or four weeks with ordinary diet.

#### 4.—*Increasing free meals to out-patients :*

Owing to the great number of out-patients in Qena and Aswan provinces who suffer from aneamia and malnutrition, it has been decided to increase the number of free meals issued to out-patients from 10 to 20 meals daily.

### IV.—*Progress of Ancylostoma and Bilharzia new Schemes :*

#### 1.—*Bilharzia compulsory treatment Law :*

Since bilharzia patients are apt to cease treatment on the slightest improvement, and since medical services of other departments now exist in almost every area, a ministerial arrêté was issued in October 1950 for the application to all the country of Law No. 58 of 1941 — providing for the compulsory treatment of Bilharzia which was applied to Fayoum Province in 1943. Where no medical units existed, a mobile unit was sent for examination and treatment. Credits for 27 mobile units have been provided this year.

#### 2.—*Cooperation with other medical services interested in Endemic Diseases treatment :*

##### *Combined Bilharzia treatment at Qaliubia :*

Referance was made to this experiment in last year's report. It was started on December 21, 1949 and stopped in mid June 1950. Results obtained during the six months were satisfactory as indicated hereafter.

The base ancylostoma units could not increase their output because their medical officers were occupied with the mobile units in addition to their original duties.

The number of patients treated by the other combined units increased as indicated by the increased number of injections to three times that of 1949 and the anthelmintic doses to five times their number in 1949.

A large proportion, 63.2 per cent, of bilharzia infected persons commenced treatment. With mobile units of the Ministry of Education this ratio was 93.9 per cent. Patients' attendance for treatment was also better. The average number of injections per patient was 10 as against 8 in the past. A credit of L.E. 25,000 has been allocated for the extension of the experiment to another province.

#### 3.—*Certificate of Freedom from Parasitic Infection :*

- (a) Candidates for government daily paid service are now required to produce a certificate of freedom from parasitic infection with their documents of appointment.
- (b) Amendment of Law 73 of 1943 governing itinerant vendors has been proposed. No licences will be issued or renewed to itinerant vendors before they produce certificates of their freedom from parasitic infection.
- (c) Factories and private concerns have acceded to the ministry's request to insist on new workmen producing a certificate of freedom from parasitic infection before they take up appointments.

#### 4.—*Results of the compulsory treatment at Talat Village, Fayoum :*

The Bilharzia Snail Destruction Section was asked to intensify its snail control activities in water courses within a radius of three kilometers around the village. The inhabitants were examined for bilharzia and all positive cases were treated. The inhabitants were re-examined after 3 months from treatment and positive cases were treated.

The first examination showed that out of 3,232 persons examined 1,842 were positive and 1,390 negative. Only 1,802 positive cases were treated.

The second examination revealed that of the 1,802 treated, 1,739 were re-examined and 372 or 21.4 per cent were positive for bilharzia. Of the 1,390 negative cases, 1,333 were re-examined and 82 or 6.1 per cent were found positive. 326 of the positive cases came for treatment.



Since 6.1 per cent of the negative cases on first examination became positive on second examination, negative cases were subjected to monthly examination. And since 21.4 per cent of the positive cases who had been treated and cured became positive again, positive cases have been subjected to three monthly examination to determine the extent of relapses and new infections.

New infections have been detected among children of not more than 4 years of age. It was decided to record births as from 1944 in special lists, each year separately and to examine each group once every year in January. This was done in 1948, 1949, and 1950. The ratios of infection were as follows :

12.3	per cent	at age of	3	years.
39.6	„	„	4	„
58	„	„	5	„
86.8	„	„	6	„

#### *Observations :*

##### *New Bilharzia infections :*

Despite the intensified efforts of the Bilharzia Snail Destruction Section, new infections were continually detected :

- (a) Among cases found negative on first examination.
- (b) Among children and (c) Among children born after the campaign was started.

It was also observed that children contract the disease as early as at the age of two or as soon as they are able to walk.

The ratio of infection is higher among positive cases already treated than among negative cases. This may be due to special circumstances of the former that bring them in contact with contaminated water.

The ratio of infection is higher among younger age groups than among older.

#### *Relapses :*

Ratios of relapses were as high as 56 per cent. These occurred at prolonged intervals which emphasizes the futility of examinations carried out directly after treatment.

#### *Incidence of Infection :*

Bilharzia infection is scarce during winter and spring. This shows that the incidence is seasonal during Summer when the temperature is high, the water is low and the canals favour the breeding of snails.

#### *Intensity of Infection :*

Infection resumes its former intensity among positive cases within two years of treatment. The ratio of infection was almost 100 per cent at the age of six years. This shows the need for strict executive measures to protect children before reaching this age.

#### *Drug Tests :*

Mention was made in the 1947 report to the treatment of bilharzia with repodral injections on 10 successive days.

Reference was made in last year's report to the following tests :

- (a) Daily administration of tartar emetic instead of every other day.
- (b) Two-day treatment with repodral for in-patients.
- (c) Four-day treatment with repodral for out-patients.
- (d) Two-day treatment with tartar emetic for out-patients at Shubra Ancylostoma Hospital.



Since great caution needs be taken with short interval treatments and desiring that the results be based on sound foundation, it was decided to continue the experiments which were not completed before the end of the year.

*Training :*

The training centre of Fom el Khalig Ancylostoma Hospital continued to train new personnel of this Section and other medical services in examination and treatment techniques. During the year, 24 medical officers, 10 clerks and 65 laboratory assistants were trained. Besides, attendants of social centres of the Fellah Department of the Ministry of Social Affairs have been trained in laboratory preparation technique of specimens.

An auxiliary training centre was set up at Sayeda-Zeinab Ancylostoma clinic to meet the ever increasing number of candidates.

A laboratory assistant has been trained at the Research Institute for Tropical Diseases in the preparation of preserved specimens.

The Ancylostoma and Bilharzia inspectors have been asked to hold examinations for old laboratory assistants while inspecting the units to ensure that they have not forgotten the technical information they had received.

VI.—*Prophylaxis :*

*Educational propaganda.*

In addition to propaganda activities undertaken by the Ancylostoma and Propaganda units, the section took the following steps :—

- (a) A booklet on bilharzia was distributed to all elementary and compulsory education schools throughout the country, to preachers and the press.
- (b) Participation in the health week held in commemoration of the passing of 25 years since bilharzia control was launched.
- (c) Preachers from Damanhour, Zagazig and Cairo were lectured in endemic diseases so that they may spread the information among their listeners.
- (d) Lectures with cinema illustrations were given in Nokrashy Model School to raise the standard of health education among the pupils.
- (e) Army warrant officers were invited to attend lectures in endemic diseases control at Fom el Khalig Hospital for one week ; so that they can convey the information to their men.
- (f) Laboratory assistants and assistant nurses were instructed to include in their lectures to patients information about nutrition. The units were provided with pamphlets entitled " Proper methods of food preparation " and " Food as a source of infection " for the purpose.

*Executive :*

Since Law No. 58 of 1941 providing for the compulsory treatment of bilharzia has been applied to the whole country and in order to safeguard treatment activities, steps have been taken to issue a ministerial arrêté for the application to the whole country of Decree dated December 18, 1945, forbidding the pollution of water ways.



## Chapter XIX.—Malaria

Two new malaria stations were set up during the year, one at Mit Ghamr, Dakahlia Province, and another at Ashmoun, Menoufia Province. The Egyptian territory is thus covered by 39 main stations and 75 branch stations. Control measures have been carried out on the same lines outlined in last year's report.

The malaria main stations are responsible for the control of breeding places in 322,700 feddans (acres), whereas the branch stations control 181,085 feddans; the total area is thus 503,785 feddans.

### *New Activities of Malaria Units :*

These may be summed up in the following :

- (a) Undertaking a general microscopical examination of blood films for the whole population. This was started in July. The object is to obtain a true estimate of the incidence of malaria in every district and to detect and treat the largest possible number of malaria cases.
- (b) The substitution of clay balls soaked in 5 per cent DDT in malariol for plaster balls in the control of rice cultivations lying within half a kilometre from cities.
- (c) The substitution of a 5 per cent DDT suspension for DDT in kerosene in the spraying of public health units, etc.
- (d) Malaria warnings and contraventions concerning defective water systems of houses served by malaria stations and public health offices will henceforth be approved by the local public health inspectors. The malaria section will only be notified of judgments to arrange for their execution.

### *Results of blood film examination :*

A total of 135,400 blood films collected from patients attending the various public health units and during the general survey were microscopically examined. Tables Nos. 135, 136 and 137 give their numbers and results for Upper and Lower Egypt and the whole of Egypt. Malaria units attached to Ancylostoma Hospitals are now 35 or 17 units more than last year (Table No. 140).

Table Na. 139 shows the incidence of filaria in 1950 according to findings of the Research Institute.

### *Malaria incidence among infants under one year of age :*

Table No. 141 shows the incidence of malaria among infants under one year of age in Upper and Lower Egypt in 1950 as compared with 1949. Malaria infections in this age group are considered new.

### *Types of Malaria :*

Table No. 142 gives the incidence of the two types of malaria (Benign and Malignant) in Lower and Upper Egypt provinces and governorates having malaria stations, and percentage of each type to total positive cases.

### *Monthly distribution of Malaria :*

Tables Nos. 143 and 144 give the monthly distribution of the various types of malaria in Lower and Upper Egypt.

### *Malaria Incidence in Governorates and Provinces :*

Table No. 145 gives the number of malaria cases and deaths reported to the Statistical Department from governorates and provinces during 1949 and 1950.



### *Survey of Mosquito Breeding Places :*

Mosquito breeding places were surveyed on the same lines as in previous years. Priority of disposal of breeding places is governed by malaria incidence. Breeding places are reported to the Ministry of Rural Affairs and other competent departments for disposal. Tables Nos. 146, 147 and 148 give the results of larvae survey carried out by malaria units. Distribution of larvae species is given in table No. 146 according to provinces and in tables Nos. 147 and 148 according to birkas in Lower and Upper Egypt. It will be observed that the predominant species is the *A. pharoensis*, the malaria carrier.

### *Malaria Control Activities :*

Various modern control methods were employed. Table No. 149 gives the types, quantities and totals of insecticides used and areas controlled in Lower and Upper Egypt.

### *Warnings and Contraventions :*

Besides the control work referred to above, malaria units served warnings and contraventions under malaria Law No. 1 of 1926 modified by Law No. 78 of 1946. Table No. 150 gives their distribution according to Lower and Upper Egypt.

### *Treatment and Drugs :*

Treatment was given to patients returned positive for malaria by microscopic examination. The same course of treatment was given as in previous years. Table No. 151 gives quantities of the various drugs distributed by malaria units in Lower and Upper Egypt.

### *Application of Malaria Law :*

No Ministerial arrêtés were issued during the year in connection with malaria Law No. 1 of 1926 modified by Law No. 78 of 1946.

### *Control of mosquitoes and flies in public health units :*

A 5 per cent DDT and kerosene solution and 50 per cent DDT suspension were used for spraying hospitals and other public health units for the control of mosquitoes and flies. Table No. 152 gives details of hospitals and public health units sprayed, number of rooms in each and quantities of insecticides used in Lower and Upper Egypt.

### *Propaganda :*

As in previous years, propaganda activities were conducted in conjunction with units of the health education and social services.

### *Complaints :*

All complaints are dealt with and causes removed when possible.

### *The Principal Malaria Laboratory :*

This laboratory undertakes the examination of such surplus blood films and samples of larvae and adult mosquitoes collected by the various units as can not be dealt with by the laboratory assistant of the unit, as well as samples collected by Cairo mosquito branch. Of a total of 17,276 blood films examined during this year, 235 were returned positive for malaria (158 benign and 77 malignant).

A total of 2,016 samples of larvae and adult mosquitoes were identified as follows :

An. Par.	An. Mult.	An. Serg.	An. Maur.	Culex Pipiens.	Culex Perix.	Theob.	An Casp.	Culex Laur.	An. Latin.	An. Gambia	Total
01	382	8	161	319	313	9	19	2	7	5	2,019



This laboratory is under the supervision of an agricultural engineer who attended a malaria course at Ein Shams mosquito research station. He is assisted by three laboratory assistants. It may be of interest to mention that the first sample of mosquito larva identified as *A. gambia* was identified by the laboratory on September 21, 1950. It was sent from Abu Sombol, Nubia.

### *Cairo Anti Mosquito Service :*

This was conducted on the same lines as in previous years. The number of darakat (zones) was increased from 97 to 113, distributed over eleven areas. A count made of the houses in those sectors showed that of a total of 116,789 houses 30,979 were connected with the drainage system and 85,810 or 73 per cent drained in covered cesspits.

The work of the Cairo Anti Mosquito Service may be summed up as follows :

#### *1.—Mosquito Control in habitations :*

All houses draining in covered cesspits were sprayed with a DDT and malariol solution.

On July 30, 1950, houses in Maadi were sprayed with the DDT suspension prepared by Socony Vacuum Co. This was not so effective on the adult mosquito and therefore stopped as from November 2, 1950.

Some 311 complaints against mosquitoes in houses were received and dealt with.

#### *2.—Malaria Control in Agricultural Areas :*

Malaria gangs surveyed all water courses within their darakat for larvae. Malaria overseers sprayed breeding places with a 5 per cent DDT and Malariol solution, paris green or plaster balls soaked in DDT. State drains were cleared of weeds.

#### *3.—Sanitary Systems of Houses :*

Mosquito surveyers under sanitary technicians examined houses for defective water systems. Warnings were served on owners of houses for repairing their systems. Failure will entail prosecution and order given by the court to carry these repairs and costs debited to owners.

Of 2,928 malaria warnings served, 742 were fulfilled, 2065 were prosecuted and 121 are pending. It is worthy of mention that this year's high Nile flood caused the overflow of seepage water in 141 basements, 53 feddans of agricultural land, two burrow pits and an underground shelter. All cases were dealt with.

### *Malaria Incidence :*

According to reports from Cairo City Health Department, a total of 509 new malaria cases were notified as against 607 in last year.

Here below are given the quantities of insecticides used during the year.

TABLE No. 132

	Tons	Kgms	Gms	No.
Malariol ... ..	99	485	500	—
Cooking gas oil ... ..	25	250	—	—
DDT Emulsiens ... ..	—	10	—	—
Paris Green ... ..	—	1	450	—
DDT in Kerosene... ..	—	384	—	—
DDT Balls ... ..	—	—	—	84

The survey work of the Cairo anti mosquito service showed that the total number of the different species of larvæ amounted to 216, out of which 60 were *A. pharoensis*. One *A. multicolor*, 143 *Culex pipiens*, 2 *C. persagesus*, one *A. Aegypti* and 9 *Aedes caspius*.

The strength of the service is 4 supervisors, 13 controllers, 2 surveyors, 121 overseers, one foreman and 387 labourers under a medical officer. Clerical work is done by a clerk assisted by a few overseers.

Credit grants amounted to L.E. 39,000 as against L.E. 41,000 in the previous year. Actual expenditures amounted to L.E. 29,108.860.

#### *Sanitary Engineering Service :*

This service undertook the repair of sanitary systems of 83 houses in Cairo City the subject of final judgments under Law No. 1 of 1926 modified by Law No. 78 of 1946. The cost of the repairs amounted to L.E. 2,532 and were debited to the L.E. 3,000 allocated for the purpose.

The repairs were carried out under the supervision of three sanitary engineers assisted by three draughtsmen.

### FAYOUM CAMPAIGN 1950

#### *I.—Spray Painting :*

During the period from January 1 until the end of September 1950, 32 darakat (zones) were spray painted. One of these darakat existed within Fayoum area, 13 within Sennouris area and 18 within Itsa area. These involved 348 villages and Ezbas having 27,039 houses with 134,325 rooms. A total of 1,440.650 Kgs of 5 per cent DDT suspension was used for the purpose. As from October 1, 1950, the campaign force was engaged in the gambiae campaign in Aswan. The relative increase in consumption is attributed to difficulty of mixing the B type of DDT suspension with water. This blocked the sprayers and re-painting had to be done with the "C" type which is easier to mix and use.

#### *II.—Mosquito Survey Before Spray-Painting :*

Of a total of 30,664 houses surveyed before spray painting in 366 darakat during the period from January until the end of September 1950, 2,301 houses harboured mosquitoes or a ratio of 7.5 per cent positive as against 8 per cent in the previous year.

#### *III.—Mosquito Survey after Spray Painting :*

Of 19,005 houses surveyed in 195 darakat after spray painting during the same period 216 houses were positive or the ratio of contamination fell to 1.5 per cent as against 6 per cent in the previous year.

#### *IV.—Larvae Survey and Control :*

Larvae control was carried out around Fayoum, Sennouris and Abshaway towns since spray painting was difficult owing to the large size of these towns. The larvicide used was a 5 per cent DDT in Malariol with the exception of a few darakat in Abshaway town where 1 per cent Paris Green in dust was used during January only.

Of 113,375 units surveyed, 564 were positive or a ratio of larvæ contamination of 0.4 per cent for the province as against 1.1 per cent in the previous year.

V.—Of 8,437 blood films collected during a general survey carried out between July 1, and end of December 1950, 20 new malaria infections and 5 relapses were detected or ratio of 0.29 per cent.

Among attendances at the malaria treatment units, 5.7 per cent were positive for malaria as against 11.8 per cent in the previous year.

#### *VI.—Personnel and Expenditures :*

The personnel engaged in the Fayoum malaria campaign comprised 95 overseers, 136 labourers, 2 supervisors, 10 controllers, 4 clerks, a storekeeper, a draughtsman, an orthographer, two laboratory assistants, 3 mechanics, an assistant mechanic, a tinker, 4 motor car drivers, an orderly and a messenger under an engineer for supervising field and office work.



Expenditures amounted to L.E. 29,281.637 of which L.E. 11,202.168 were expended on larvicides and L.E. 18,079.459 on wages and other petty expenses *e.g.* rents, telegraphs, repairs etc.

VII.—*The Campaign has met with some difficulties, namely :*

(a) *Means of Transport :*

The transport of personnel to sites of operation was the first difficulty encountered. The campaign was in need of seven vehicles. Only three were available and these often went out of order and work in distant places had to be stopped.

(b) Most of the sprayers in use were of the agricultural type and these have been in constant use for over four years, not taking into account the time they had been in use in the Ministry of Agriculture. Thus only one fourth of the number of sprayers was serviceable and this required repeated repairs and spare parts, all of which hindered progress. A great deficiency was felt in other equipment *e.g.* funnels, buckets, strainers, etc.

The Section anticipates remedying this state of affairs within limits of next year's available credits.

TABLE No. 133—CONTROL WORK BY SANITARY AIR SQUADRON CONTINUED DURING 1950 AS INDICATED BELOW ;—

Date		District	No. of sprayings	Hour	Min.	Hour	Min.	Benzine in Gallons	Oil in Gallons	D.D.T. in		Area sprayed in acres	Total expenses: Fuel and Ins. L.E. Mills	Average cost spraying one acre once Mill.
Beginning work	Terminating work									Veisicol 20% in Gallons	Cooking gas 15% in Gallons			
7- 1	14- 5	Fayoum Auberg ... ..	10	64	35	14	44	1,704	26	1,780	—	24,686	1,781.418	722
2- 3	7- 3	Zamalek, Gezira, Cairo ... ..	4	3	35	1	28	128	3	179	—	2,504	170.443	68
18- 3	22- 3	Dekheila Aerodrome ... ..	5	3	40	1	30	134	3.5	179	—	2,460	171.855	698
29- 3	29- 3	Ballah Aerodrome(Canal Zone)	1	1	50	—	20	68	1	40	—	560	46.249	825
4- 5	4- 5	Kubba Palace Area ... ..	1	1	10	—	26	39	1	53	—	728	50.733	696
4- 5	4- 5	Inshas Palace ... ..	1	1	15	—	26	40	1	53	—	728	50.937	699
11- 5	11- 5	Heliopolis Aerodrome ... ..	1	—	20	—	5	15	—	10	—	140	11.060	79
17- 6	10-10	Ras-El-Tin Palace ... ..	—	30	7	9	52	913	14	1,168	—	16,546	1,125.930	68
20- 6	29- 7	Kafr el Sheikh ... ..	2	44	15	8	24	1,113	19.5	995	—	14,132	1,030.403	729
10- 6	30- 7	Dessouk ... ..	4	28	35	9	15	845	11.5	15	403	15,532	315.660	203
25- 7	11-10	Montazah Palace ... ..	—	20	13	7	45	730	12	917	—	12,978	887.044	683
29-10	10-12	Zamalek, Gezira, Cairo ... ..	8	9	50	5	13	414	6	622	—	8,776	584.318	665
5-11	7-11	Fayoum Auberg ... ..	1	4	10	—	46	416	2	91	—	1,288	103.338	802
		TOTAL ... ..	—	213	35	60	14	6,289	160.5	6,102	403	101,058	6,329.388	826



**TABLE NO. 134—RESULTS OF LARVAE SURVEY IN DESSOUK LOCALITY FROM 19/6/1950  
TO 3/8/1950 & KAFR-EL-SHEIKH LOCALITY (From 19/6/1950 to 6/8/1950)**

Area	Divisions of area	Before Spraying			After Spraying		
		No.of units surveyed	No. Positive	Rate per cent	No. of units Surveyed	No. of units positive	Rate per cent
	<b>Dessouk locality</b>						
A	Section 1, 2, 3	315	155	49.5	2,887	1,250	43.3
B	„ 4, 5, 6, 7	931	228	24.47	11,081	1,138	10.26
C	„ 8, 9, 10	75	34	45.3	1,055	509	48.2
	<b>Kafr-El-Sheikh locality</b>						
A	Section 1, 3, 5	352	21	5.9	1,320	74	5.6
B	„ 2, 4, 6, 8	546	38	6.95	1,521	96	6.4
C	„ 7, 9, 10	397	39	9.8	1,204	103	8.5

Credits of this Section, during the fiscal year 1950–1951, amounted to L.E. 120,000. The execution of sanitary measures in certain houses was L.E. 3,000. Cairo Anti malarial campaign was L.E. 39,000.

The actual expenditures during the year were as follows:—										L.E.	Mills
(a)	General Control	...	...	...	...	...	...	...	...	74,631.	370
(b)	Fayoum Campaign	...	...	...	...	...	...	...	...	12,181.	270
(c)	Control by Aircraft	...	...	...	...	...	...	...	...	9,065.	423
(d)	Cairo Anti malarial campaign	...	...	...	...	...	...	...	...	29,108.	860
(e)	Execution of Sanitary Measures in certain houses of Cairo.	...	...	...	...	...	...	...	...	2,692.	315
TOTAL										127,679.	238
Administrative Service and Malaria Units										40,582.	110
TOTAL										168,261.	348

N.B.—High cost of living bonus is excluded.

TABLE NO. 135.—DISTRIBUTION OF BLOOD FILMS EXAMINED FOR LOWER EGYPT  
AND CANAL AND SUEZ GOVERNORATES DURING 1950

Category	No of Specimens	Positive			Rate per cent
		New	Relapses	TOTAL	
A. Attendance at malaria units and ancylostoma hospitals ...	5,584	49	597	<b>646</b>	11.5
B. General Survey ... ..	81,109	689	1,170	<b>1,859</b>	2.2

TABLE NO. 136.—DISTRIBUTION OF BLOOD FILMS EXAMINED FOR UPPER EGYPT  
AND THE SOUTHERN AND WESTERN DESERT GOVERNORATES DURING 1950

Category	No of Specimens	Positive			Rate per cent
		New	Relapses	TOTAL	
A. Attendance at malaria units and ancylostoma hospitals ...	3,500	—	585	<b>585</b>	16.7
B. General Survey ... ..	45,207	72	718	<b>790</b>	1.7

TABLE NO. 137.—DISTRIBUTION OF BLOOD FILMS EXAMINED FOR  
MALARIA IN EGYPT DURING 1950

Category	No of Specimens	Positive			Rate per cent
		New	Relapses	TOTAL	
A. Attendance at malaria units and ancylostoma hospitals ...	9,084	49	1,182	<b>1,231</b>	13.55
B. General Survey ... ..	126,316	761	1,888	<b>2,649</b>	2.0



TABLE No. 138. —NUMBER OF SPECIMENS EXAMINED FOR MALARIA BY RESEARCH  
INSTITUTE DURING 1950

Category	No. of Blood specimens	Positive Malaria			Total positive	Rate per cent
		Benign	Malignant	Mixed infection		
Specimens from Malaria Stations & Out-Posts	6,989	6	1	—	7	0.1
Specimens from Hospitals ... ..	219	46	18	—	64	28.7
„ „ Ancylostoma units ... ..	298	24	4	—	28	9.4
Total ... ..	<b>7,506</b>	<b>76</b>	<b>23</b>	—	<b>99</b>	<b>1.3</b>

TABLE No. 139. - DISTRIBUTION OF BLOOD FILMS EXAMINED FOR FILARIASIS BY  
RESEARCH INSTITUTE DURING 1950

Province or Governorate	Locality	No. of Specimens	Positive Filaria	Rate Per cent	Remarks
Qena ... ..	Qena ... ..	969	—	—	—
	Nag Hammadi ... ..	46	—	—	—
Minia ... ..	Minia ... ..	208	—	—	—
Beni Suef ...	Beni Suef ... ..	30	—	—	—
Sharkia ...	Abu-Kebir ... ..	116	14	12.0	—
Qaliubia ...	Qaliub... ..	1	—	—	—
Fouadia ...	Kafr El Sheikh... ..	81	—	—	—
Cairo ... ..	Research Institute ... ..	30	13	43.3	—
Giza ... ..	Filariasis at Pyramids ... ..	22,503	457	2.0	—
Canal ... ..	Ismailia ... ..	147	—	—	—
TOTAL... ..		<b>24,131</b>	<b>484</b>	<b>2.0</b>	—

TABLE No. 140.—MALARIA UNITS ATTACHED TO ANCYLOSTOMA HOSPITALS AND PATIENTS  
ATTENDING FOR THEIR BLOOD-EXAMINATION DURING 1950 AND POSITIVE RESULTS.

Locality of Unit	No. Examined	Positives	Rate %	B.T.		Mal. T		Q. M.	
				New Cases	Relaps.	New Cases	Relaps.	New Cases	Relaps.
Ismailia ... ..	361	76	21.05	56	20	—	—	—	—
Suez... ..	859	4	0.4	3	1	—	—	—	—
Kafr El Dawar ... ..	1,873	29	1.5	11	16	—	2	—	—
Damanhour ... ..	1,875	78	4.16	34	27	12	5	—	—
Fowa ... ..	2,290	1,184	51.7	1	435	—	748	—	—
Kafr El Sheikh ... ..	3,180	1,592	50	86	1,489	—	17	—	—
Dessouk ... ..	3,132	1,828	58.3	100	1,662	1	65	—	—
Biala ... ..	1,590	173	14	2	168	2	1	—	—
Mahalla Kobra ... ..	405	126	31.1	86	38	2	—	—	—
Belkas ... ..	271	107	39.4	61	46	—	—	—	—
Tanta ... ..	489	43	8.7	5	30	—	8	—	—
Faraskour ... ..	2,906	852	29.3	817	28	5	2	—	—
Dekernis... ..	2,157	343	15.9	17	322	—	4	—	—
Damietta ... ..	961	312	32.5	276	36	—	—	—	—
Mansoura ... ..	672	16	2.4	11	5	—	—	—	—
Mit Ghamr ... ..	1,455	175	8	—	175	—	—	—	—
Aga ... ..	657	48	7.3	43	—	5	—	—	—
Shebin El Kom ... ..	706	100	7	—	98	—	2	—	—
Ashmoun ... ..	2,263	7	0.3	2	5	—	—	—	—
Abu Kebir ... ..	3,797	1,398	36.8	730	556	31	81	—	—
Belbeis ... ..	2,503	539	21.1	31	419	1	88	—	—
Zagazig ... ..	979	284	29	36	223	—	25	—	—
Fakous ... ..	529	119	22.5	91	22	2	4	—	—
Toukh ... ..	4,328	1,522	35.1	1	1,152	—	369	—	—
Qaliub ... ..	777	88	11.3	3	38	1	46	—	—
Benha ... ..	689	82	11.9	11	66	—	5	—	—
Fayoum ... ..	551	46	8.3	15	28	1	2	—	—
Abshaway ... ..	3,626	194	5.3	5	178	1	10	—	—
Beni Suef ... ..	678	58	8.5	19	16	—	23	—	—
Minia ... ..	978	295	29.8	227	63	3	2	—	—
Assiut ... ..	153	38	24.8	34	4	—	—	—	—
Souhag ... ..	183	12	6.55	3	9	—	—	—	—
Nag Hammadi ... ..	172	44	2.55	5	39	—	—	—	—
Qena ... ..	3,126	30	1	—	22	—	—	—	8
Aswan ... ..	207	—	—	—	—	—	—	—	—
TOTAL ... ..	51,387	11,872	23.05	2,822	7,436	67	1,509	—	8



TABLE NO. 141—MALARIA INCIDENCE AMONG INFANTS UNDER ONE YEAR OF AGE  
IN LOWER AND UPPER EGYPT, 1949 AND 1950

Province or Governorate	Name of Station	1950			1949		
		No. of Children examined for Malaria	Positive	Rate per cent	No. of Children examined for Malaria	Positive	Rate per cent
Behera... ..	Idku ... ..	210	42	20	80	1	1·2
	Kafr El Dawar ...	—	—	60	60	—	—
Gharbia ... ..	Biala ... ..	49	19	39·3	14	2	18·1
	Mehalla Kobra ...	40	11	27	9	—	—
	Belkas ... ..	—	—	—	20	1	5
Dakahlia ... ..	Dekernis... ..	56	35	62·6	—	—	—
Canal ... ..	Ismailia ... ..	216	—	—	371	—	—
	Suez... ..	—	—	—	2	—	—
Sharkia ... ..	Belbeis ... ..	3,114	1,149	37	13	4	30·7
	Abu Kebir ... ..	422	119	28·1	—	—	—
	Inshas ... ..	19	8	42	—	—	—
	Zagazig ... ..	—	—	—	147	1	0·6
Menoufia ... ..	Ashmoun ... ..	—	—	—	115	1	0·9
Qaliubia ... ..	Toukh ... ..	100	10	10	—	—	—
	Qaliub ... ..	—	—	—	8	1	12·5
Giza ... ..	Giza... ..	3	—	—	—	—	—
Fayoum ... ..	Fayoum ... ..	4	—	—	—	—	—
	Abshaway ... ..	610	114	18·6	72	3	4·1
Qena ... ..	Qena ... ..	2	2	100	—	—	—
Aswan... ..	Aswan ... ..	1	1	100	—	—	—
Kharga Oases ...	Kharga Oases ...	45	—	—	67	—	—
GRAND TOTAL ...		4,891	1,510	30·8	978	14	1·4

TABLE No. 142.— DISTRIBUTION OF MALARIA CASES ACCORDING TO TYPES DURING 1950

Province or Governorate	Benign Tertian				Malignant Tertian			
	No.	New	Relap.	Rate per cent	No.	New	Relap.	Rate per cent
Lower Egypt and Canal Governorates								
Canal ... ..	227	194	33	99.5	1	1	—	0.5
Western Desert...	35	—	35	41.17	50	1	49	58.83
Behera...	639	46	593	95.23	32	17	15	4.77
Gharbia ... ..	148	136	12	99.5	1	1	—	0.5
Fouadia ... ..	101	—	101	95.23	3	—	3	2.85
Dakahlia ... ..	399	101	298	100	—	—	—	—
Sharkia ... ..	623	189	434	88.43	81	15	66	11.57
Menoufia ... ..	37	2	35	100	—	—	—	—
Qaliubia ... ..	75	17	58	59.05	52	18	34	40.95
TOTAL ... ..	2,284	685	1,599	91.17	220	53	167	6.91
Upper Egypt and the Southern Desert Governorate								
Southern Desert ... ..	53	10	43	100	—	—	—	—
Giza ... ..	905	—	905	87	133	—	133	13
Fayoum ... ..	23	18	5	88	3	2	1	12
Beni Suef ... ..	20	9	11	48.8	21	13	8	51.2
Minia ... ..	43	14	29	87	6	6	—	13
Assiut ... ..	7	—	7	100	—	—	—	—
Gerga ... ..	2	—	2	100	—	—	—	—
Qena ... ..	159	—	159	100	—	—	—	—
Aswan ... ..	—	—	—	—	—	—	—	—
TOTAL ... ..	1,212	51	1,161	88.1	163	21	142	11.9



TABLE NO. 143—MONTHLY DISTRIBUTION OF MALARIA CASES ACCORDING TO TYPES IN LOWER EGYPT THE CANAL, AND WESTERN DESERT GOVERNORATES DURING 1950

Months	Total of Specimens	Total of Positive Cases	Rate %	Benign Tertian				Malignant Tertian				Quartan Malaria				Remarks
				No.	New	Relapses	%	No.	New	Relapses	%	No.	New	Relapses	%	
January ... ..	462	38	8.2	25	6	19	5.4	13	—	13	2.8	—	—	—	—	
February ... ..	439	50	11.3	49	1	48	11.1	1	—	1	0.2	—	—	—	—	
March ... ..	1,098	43	3.8	43	—	43	3.8	—	—	—	—	—	—	—	—	
April ... ..	1,034	54	5.2	54	1	53	5.2	—	—	—	—	—	—	—	—	
May ... ..	1,282	27	2.1	27	5	22	2.1	—	—	—	—	—	—	—	—	
June ... ..	955	23	2.3	23	3	20	2.4	—	—	—	—	—	—	—	—	
July ... ..	7,233	235	3.2	232	61	171	3.2	3	—	3	0.04	—	—	—	—	
August ... ..	16,646	584	3.4	562	196	366	3.3	21	12	9	0.1	1	—	1	0.006	
September ... ..	13,598	366	2.7	345	113	232	2.5	21	4	17	0.1	—	—	—	—	
October ... ..	14,884	468	3.2	407	113	294	2.7	61	15	46	0.04	—	—	—	—	
November ... ..	14,622	375	2.5	311	102	209	2.1	64	12	52	0.04	—	—	—	—	
December ... ..	14,440	242	1.8	206	84	122	1.4	36	10	26	0.02	—	—	—	—	
TOTAL ... ..	86,693	2,505	2.8	2,284	685	1,599	2.6	220	53	167	0.02	1	—	1	0.001	

TABLE No. 144.-- MONTHLY DISTRIBUTION OF MALARIA CASES ACCORDING TO TYPES IN UPPER EGYPT AND FRONTIER GOVERNORATES DURING 1950

Months		Total of Specimens	Total of Positive Cases	%	BENIGN TERTIAN				MALIGNANT TERTIAN				REMARKS
					No.	New	Relapses	%	No.	New	Relapses	%	
January ...	... ..	905	12	1.3	9	—	9	1	3	—	3	0.3	
February...	... ..	483	9	1.7	8	—	8	1.6	1	—	1	0.1	
March ...	... ..	673	14	2.08	13	—	13	1.9	1	—	1	0.1	
April ...	... ..	1,076	25	2.3	24	—	24	2.2	1	—	1	0.1	
May ...	... ..	1,206	66	5.4	66	2	64	5.4	—	—	—	—	
June ...	... ..	1,031	114	11.0	111	—	111	10.7	3	—	3	0.4	
July ...	... ..	3,994	190	4.7	186	—	186	4.6	4	—	4	0.1	
August ...	... ..	11,058	289	2.6	271	14	257	2.4	18	4	14	0.2	
September	... ..	6,504	145	2.2	136	7	129	2.0	9	1	8	0.2	
October ...	... ..	7,745	262	3.3	196	8	188	2.5	66	2	64	0.8	
November	... ..	7,434	181	2.4	136	14	122	1.8	45	6	39	0.6	
December	... ..	6,598	68	1.0	56	6	50	0.8	12	8	4	0.2	
TOTAL ...		48,707	1,375	2.8	1,212	51	1,161	2.5	163	21	142	0.3	



TABLE NO. 145.— NUMBER OF MALARIA CASES AND DEATHS  
NOTIFIED DURING THE YEARS 1949 AND 1950

PROVINCE OR GOVERNORATE	New Cases						Relapses 1950	
	1949		1950		Difference		Cases	Deaths
	Cases	Deaths	Cases	Deaths	Cases	Deaths		
Cairo ... ..	607	3	509	4	— 98	+ 1	34	8
Alexandria ... ..	204	1	91	1	—113	—	—	—
Other Governorates	201	3	307	—	+106	— 3	10	6
Behera Province ...	30	—	188	3	+158	+ 3	—	7
Dakahlia „ ...	107	1	271	1	+164	—	6	7
Gharbia „ ...	575	3	129	1	—446	— 2	599	—
Fouadia „ ...	—	—	182	1	—	—	—	1,291
Menoufia „ ...	87	—	26	3	— 61	+ 3	36	84
Sharkia „ ...	110	1	935	—	+825	— 1	16	31
Qaliubia „ ...	230	1	418	—	+188	— 1	16	33
Giza „ ...	250	3	254	1	+ 4	— 2	—	1
Fayoum „ ...	82	—	60	—	— 22	—	611	154
Beni-Suef „ ...	50	—	239	—	+189	—	6	1
Minia „ ...	229	—	515	—	+286	—	18	5
Assiut „ ...	32	—	71	—	+ 39	—	—	1
Gerga „ ...	7	—	12	—	+ 5	—	—	—
Qena „ ...	13	1	48	—	+ 35	— 1	25	16
Aswan „ ...	4	—	—	—	— 4	—	15	—
<b>TOTAL ... ..</b>	<b>2,818</b>	<b>17</b>	<b>4,255</b>	<b>15</b>	<b>+1,437</b>	<b>— 2</b>	<b>1,312</b>	<b>1,645</b>

TABLE No. 146.—DISTRIBUTION OF ANOPHELES LARVAE EXAMINED BY PRINCIPAL STATIONS  
IN LOWER AND UPPER EGYPT DURING 1950

Province or Governorate	No of Anopheles	Anopheles Species			
		Pharoen	Mult	Sergenti	Mauri.
Canal .. ...	364	236	—	3	125
Baharia Oases ...	53	4	45	4	—
Behera ...	232	232	—	—	—
Fouadia ...	1801	1760	3	1	37
Gharbia ...	215	208	1	1	5
Dakahlia ...	220	214	—	—	(
Menoufia ..	40	39	1	—	—
Sharkia ...	338	323	1	1	13
Qaliubia ...	46	44	1	—	1
<b>TOTAL : Lower Egypt ...</b>	<b>3,309</b>	<b>3,060</b>	<b>52</b>	<b>10</b>	<b>187</b>
Giza ...	54	54	—	—	—
Beni Suef ...	81	80	—	—	1
Minia ...	480	480	—	—	—
Assiut ...	111	111	—	—	—
Gerga ...	205	205	—	—	—
Qena ...	254	252	1	—	1
Aswan... ..	60	51	8	—	1
Southern Desert ...	156	142	14	—	—
<b>TOTAL : Upper Egypt ...</b>	<b>1,401</b>	<b>1,375</b>	<b>23</b>	<b>—</b>	<b>3</b>



TABLE No. 147.—NUMBER OF VILLAGES SURVEYED AND BIRKAS FOUND HARBOURING LARVAE OF ANOPHELES, AND CULEX PIPPIENS  
IN LOWER EGYPT AND CANAL GOVERNORATES DURING THE YEAR 1950

Province or Governorate	Malaria Station	No. of Villages surveyed	No. of Birkas examined	Positive for Larvae		Birkas harbouring Anopheles Larvae						Birkas Harboursing Culex Pipiens				
				No.	Rate %	Phar.		Multicolor		Sergenti		Other Species		No.	Rate %	
						No.	Rate %	No.	Rate %	No.	Rate %	No.	Rate %			
Canal ... ..	{	Ismailia ... ..	90	89	98.8	43	48.2	3	3.3	—	—	43	48.2	—	—	
		Suez ... ..	41	—	—	—	—	—	—	—	—	—	—	—	19	46
Baharia Oases ... ..	...	Wadi El Natroun ... ..	70	30	43	—	—	2	7	—	—	—	—	28	93	
Behera ... ..	...	Damanhour ... ..	41	19	46	17	89.5	—	—	—	—	—	1.4	—	—	
Gharbia ... ..	{	Mehalla el Kobra ... ..	49	4	8	—	—	—	—	—	—	4	100	—	—	
		Tanta ... ..	5	3	60	3	100	—	—	—	—	—	—	—	—	—
Dakahlia ... ..	{	Faraskour ... ..	7	1	14	1	100	—	—	—	—	—	—	—	—	
		Dekernis ... ..	16	2	12	—	—	—	—	—	—	—	—	—	2	100
		Mit Ghamr ... ..	2	—	—	—	—	—	—	—	—	—	—	—	—	—
		Mansoura ... ..	83	3	3.6	3	100	—	—	—	—	—	—	—	53	63
Menoufia ... ..	{	Shebin el Kom ... ..	21	15	71	1	6.6	—	—	—	—	—	—	18	86	
		Ashmoun ... ..	6	2	33.3	2	100	—	—	—	—	—	—	—	2	100
Sharkia ... ..	{	Belbeis ... ..	34	3	9	3	100	—	—	—	—	—	—	18	53	
		Zagazig ... ..	31	20	64	3	15	—	—	—	—	—	—	—	16	80
TOTAL ... ..			496	191	38	76	39.2	5	3.	—	—	49	25.6	156	81.6	

TABLE No. 148.—No. of Villages Surveyed and Birkas Found Harbousing Larvae of Anopheles, and Culex Pipiens in Upper Egypt and Frontier Governorates during the Year 1950

Province or Governorate	Malaria Station	No. of Villages surveyed	No. of Birkas examined	Positive For Larvae		Birkas Harbousing Anopheles Larvae								Birkas Harbousing Culex Pipiens																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				No.	%	Pharoensis.		Multicolor.		Sergenti		Other Species		No.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Giza...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</



**TABLE NO. 149.—QUANTITIES OF DIFFERENT LARVICIDES CONSUMED IN MALARIA CONTROL  
DURING 1950 IN LOWER AND UPPER EGYPT TOGETHER WITH AREAS TREATED**

District	Province or Governorate	Station	Quantities Consumed				
			DDT with Malariol.Kgs.	Pure D.D.T, Kilograms	Paris Green Kgs.	Water SuspensionK.	Controlled Area in sq m.
Lower Egypt	Canal ...	Ismailia... ..	16,124.254	271.000	—	—	37,604,375
		Suez ... ..	5,172.000	70.750	—	—	9,453,729
	Western Desert ...	Wadi el Natroun ...	221.562	104 250	—	—	425,069
		Siwa ... ..	—	—	137.700	—	1,351,704
		Baharia Oases	1,686.952	—	—	—	3,373,904
	Behera ...	Idku ... ..	5,200.400	—	—	—	11,972,049
		Kafr el Dawar	3,710.750	22.000	7.600	—	4,486,929
		Damanhour ...	7,012.500	141.530	—	—	8,482,681
	Fouadia	Fowa ... ..	5,680.500	—	—	—	9,832,939
		Kafr El Sheikh	3,158.500	1.950	83.480	—	5,917,191
		Dessouk ...	5,642.072	9.479	—	—	129,433,759
	Gharbia...	Biala ... ..	4,800.000	184.200	78.618	—	7,439,970
		Mehalla Kobra	4,699.600	—	4.000	—	10,134,054
		Belkas ... ..	1,770.500	—	4.300	—	3,326,821
		Tanta ... ..	7,812.000	—	—	—	13,112,589
	Dakahlia	Faraskour ...	3,900.000	876.000	377.908	—	9,544,240
		Dekernis ...	4,373.280	—	—	—	4,405,170
		Mansoura ...	6,730.500	—	—	—	12,789,118
		Mit Ghamr ...	3,035.000	—	—	—	4,031,329
	Menoufia	Shebin El Kom	3,800.000	—	105.776	—	12,111,728
		Ashmoun ...	2,731.000	—	—	—	3,081,135
	Sharkia	Abu Kebir ...	9,178.000	—	—	—	8,902,947
		Belbeis & Inshas ...	8,552.000	—	—	—	12,746,636
		Zagazig ...	7,299.500	—	—	—	13,425,599
	Qaliubia	Toukh ... ..	6,280.800	17.200	—	—	8,625,530
		Qaliub ... ..	6,031.000	—	276.950	—	11,011,207
	TOTAL ...		134,602.670	1,509.359	1,076.322	—	357,022,402
Upper Egypt	Giza ... ..	Giza ... ..	16,108.000	24,759.700	—	—	14,770,000
	Beni Suef...	Beni Suef ...	10,439.000	78.950	—	136	25,395,291
	Minia... ..	Minia ... ..	18,609.521	72.000	32.600	—	34,135,910
	Assiut ...	Assiut ... ..	2,103.566	65.000	404.100	248	4,370,241
	Gerga ...	Gerga ... ..	494.000	11.865	585.070	19	4,975,565
	Qena ...	Nag Hamadi	3,776.420	—	2.000	—	6,716,191
		Qena ... ..	2,437.000	36.874	—	—	4,263,749
		Luxor ... ..	3,885.000	32.932	23.750	—	6,578,389
		Mataana ...	4,029.197	38.500	—	82	6,694,221
	Aswan ...	Kom Ombo ...	3,944.023	—	506.431	—	8,443,378
		Aswan ... ..	2,512.797	—	8.830	—	3,556,598
	Frontier Govte. ...	Dakhla Oases	570.000	—	1,097,850	—	4,512,953
		Kharga ..	3,546.000	105.000	312,000	—	9,666,000
	TOTAL UPPER EGYPT ;		72,455.339	25,370.821	2,972.943	485	134,078,486
	TOTAL LOWER EGYPT ;		134602.670	1,509.359	1,076.322	—	357,022,402
	GRAND TOTAL ;		207,058.009	26,880.180	4,049.265	485	491,100,888

TABLE NO. 150— NUMBER OF WARNINGS AND P.VS OF CONTRAVENTION SERVED  
OUT BY MALARIA UNITS AND THEIR BRANCHES IN UPPER AND LOWER EGYPT, THE  
CANAL ZONE AND FRONTIER DISTRICTS DURING 1950

Province or Governorate	Unit	Burrow pits or Puddles		Filling in or covering over disused wells or Sakias and Abolishing pumps		Clearing Drains or Miskas		Clearing Ponds or Marshes		Prohibition of Rice and Sugar cane Cultivations		Evacuation of or covering cess-pits	
		Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs.
Canal ...	Ismailia ... ..	1	—	—	—	121	27	—	—	—	—	—	—
	Suez... ..	—	—	—	—	3	1	—	—	—	—	—	—
Western Desert	W. El Natroun	9	1	2	—	—	—	—	—	—	—	—	—
Behera ... ..	Damanheur	17	—	—	—	—	—	—	—	—	166	—	—
Gharbia ... ..	Mehalla Kobra	—	—	2	2	—	—	—	—	—	13	—	—
	Tanta ... ..	—	—	—	—	1	—	—	—	—	2	—	—
Dakahlia ... ..	Dekernis ...	—	—	—	—	9	—	—	—	—	—	—	—
Menoufia... ..	Shebin Dl Kom	—	—	24	—	—	—	—	—	—	—	—	—
Sharkia ... ..	Belbeis ... ..	21	—	12	—	1	—	—	—	5	5	—	—
	Zagazig ... ..	1	—	9	—	1	—	—	—	—	—	—	—
TOTAL LOWER EGYPT ...		49	1	49	2	136	28	—	—	5	186	—	—
Giza... ..	Giza ... ..	1	—	11	3	—	—	—	—	—	—	—	—
Fayoum ... ..	Fayoum ... ..	—	—	—	—	—	—	—	—	—	11	—	—
Beni-Suef ... ..	Beni Suef ...	16	3	4	2	—	—	—	—	—	—	50	19
Assiut ... ..	Assiut ... ..	3	3	16	16	—	—	—	—	—	—	—	—
Qena ... ..	Qena ... ..	—	3	—	—	—	—	—	—	—	—	—	—
„ ... ..	Luxor ... ..	1	—	3	—	—	—	—	—	—	—	—	—
TOTAL UPPER EGYPT ...		21	9	34	21	—	—	—	—	—	11	50	19
GRAND TOTAL ... ..		70	10	83	23	136	28	—	—	5	197	50	19



**TABLE NO. 151—QUANTITIES OF DIFFERENT DRUGS ADMINISTERED FOR TREATMENT OF POSITIVE CASES IN LOWER AND UPPER EGYPT DURING 1950.**

Kind of Drug	Administered in Tablets		Grand Total
	Lower Egypt	Upper Egypt	
Quinine 5 Grs. ... ..	13,163	1,700	14,862
„ 2 „ ... ..	18,231	2,020	20,251
„ chocolate ... ..	6,685	11,566	18,251
Atebrin ... ..	119,963	182,548	302,511
Plasmochin Comp, 1 cm. ... ..	2,432	844	3,276
Plasmochin $\frac{1}{2}$ cm ... ..	990	3,694	4,684
Blaud's Pills ... ..	72,620	16,749	89,639

**TABLE NO. 152—HOSPITALS AND HEALTH UNITS ETC, AND NO. OF ROOMS SPRAY-PRINTED WITH INSECTICIDE BY MALARIA STATIONS IN EGYPT DURING 1950.**

Station	No. of Hospitals and Health Units etc	No. of Rooms	Insecticide Employed	Quantities consumed (Kilo Grs.)
Ismailia ... ..	6	62	D.D.T. Kerosene Water suspension	622,000
Suez ... ..	5	420	„	1,759.500
Damanhour ... ..	11	350	„	3,153.000
Kafr El Sheikh ... ..	17	99	„	711.000
Dessouk ... ..	4	95	„	330.000
Biala ... ..	9	81	„	52.000
Faraskour ... ..	32	546	„	4,288.000
Dekernis... ..	25	301	„	1,260.000
Mansoura ... ..	18	929	„	366.000
Mit Ghamr ... ..	9	105	„	136.000
Shebin El Kom ... ..	7	80	„	832.000
Belbeis ... ..	1	67	„	185.000
Zagazig ... ..	2	90	„	237.000
Toukh ... ..	32	19,458	„	4,947.000
Qaliub ... ..	6	144	„	48.000
<b>TOTAL LOWER EGYPT... ..</b>	<b>164</b>	<b>22,827</b>	„	<b>18,963.500</b>
Beni Suef ... ..	18	643	„	1,467.000
Minia ... ..	23	—	„	9,990.000
Assiut ... ..	31	1,780	„	248.000
Souhag ... ..	12	209	„	1,773.000
Nag Hammadi ... ..	6	20	„	108.000
Qena ... ..	17	481	„	2,268.000
Luxor ... ..	9	276	„	882.000
Mataana... ..	5	175	„	756.000
Aswan ... ..	21	330	„	1,390.000
<b>TOTAL UPPER EGYPT ... ..</b>	<b>142</b>	<b>3,914</b>	„	<b>18,882.000</b>
<b>GRAND TOTAL... ..</b>	<b>306</b>	<b>26,741</b>	„	<b>37,845.500</b>

TABLE No. 153.—SHOWING GENERAL EXPENDITURES OF PRINCIPAL STATIONS AND SUB-STATIONS IN LOWER EGYPT DURING 1950 (EXCLUSIVE OF COST OF TRANSPORT AND THEIR APPURTENANCES).

Name of Station	Administrative expenses	Insecticides consumed and their relative prices										
		Malariol with D.D.T. 5%			Pure D.D.T.			Paris Green			Wettable powder	
		Quantity	Price		Quantity	Price		Quantity	Price		Quantity	Price
		Kgrs.	L.E.	M.	Kgrs.	L.E.	M.	Kgrs.	L.E.	M.	Kgrs.	L.E.
I. maillia ... ..	2,564 . 188	134,602.670	L.E. 6,191.698	1,509.359	L.E. 1,086.738	1,076.322	L.E. 150.685					
Suez ... ..	1,979 . 751											
Wadi El Natroun ... ..	284 . 635											
Siwa ... ..	1,170 . 072											
Baharia Oases ... ..	2,290 . 400											
Idku ... ..	3,629 . 249											
Kafr El Dawar... ..	1,891 . 633											
Damanhour ... ..	1,889 . 002											
Fowa ... ..	1,844 . 732											
Kafr El Sheikh... ..	860 . 179											
Dessouk ... ..	2,827 . 113											
Biala ... ..	2,347 . 581											
Mehalla Kobra ... ..	2,077 . 577											
Belkas... ..	616 . 352											
Tanta ... ..	2,755 . 277											
Faraskour ... ..	2,647 . 588											
Dekernis ... ..	2,701 . 792											
Mansoura ... ..	2,048 . 751											
Mit Ghamr... ..	970 . 265											
Shebin El Kom ... ..	2,472 . 681											
Ashmoun ... ..	1,340 . 448											
Abu-Kebir ... ..	4,812 . 105											
Belbeis & Inshas ... ..	4,146 . 808											
Zagazig ... ..	3,680 . 346											
Toukh... ..	5,555 . 621											
Qaliub ... ..	2,180 . 736											
TOTAL ... ..	357,022 . 402											

N.B.—Distribution of quantities of larvicide consumed per malaria station is shown in Table No. 149.



**TABLE NO. 154—GENERAL EXPENDITURES OF PRINCIPAL STATIONS AND SUB-STATIONS IN UPPER EGYPT, DURING 1950. (EXCLUSIVE OF COST OF TRANSPORT AND THEIR APPURTENANCES)**

Name of Station	Administrative expenses	Insecticides consumed & their relative prices							
		Malariaol with D. D. T. 5%		Pure D. D. T.		Paris Green		Wettable powder	
		Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price
		Kgrs.	L.E.M.	Kgrs.	L.E.M.	Kgrs.	L.E.M.	Kgrs.	L.E.M.
	L.E.    M.								
Giza ... ..	22,793.767								
Fayoum ... ..	1,818.356								
Abshaway ... ..	823.521								
Beni Suef ... ..	2,524.866								
Minia ... ..	5,720.236								
Assiut ... ..	4,324.590								
Souhag ... ..	3,245.670								
Nag Hammadi ... ..	2,324.696	72,455.339	L.E. 3,332.933	25,370.821	L.E. 18,266.400	2,972.943	L.E. 416.212	485.000	L.E. 198.365
Qena ... ..	2,664.459								
Luxor ... ..	6,124.754								
Mataana ... ..	3,274.969								
Kom Ombo ... ..	2,708.220								
Aswan... ..	5,570.172								
Dakhla Oasis ... ..	2,629.749								
Kharga ,, ... ..	1,682.023								
<b>TOTAL ... ..</b>	<b>68,230.048</b>								

N.B.—Distribution of quantities of larvicide consumed per malaria stations is shown in Table No. 149.

## Chapter XX.—Insects Control

The Insect Control Section comprises the following branches :

(1) *Mosquito Branch.* at Ein Shams : This includes :

(a) A permanent station for conducting experiments on the different malaria control methods in the field, laboratory breeding of mosquitoes and the effect of insecticides thereon.

It has also a laboratory for the identification of mosquito species forwarded by the different stations and a team for the periodical spray-painting of aerodromes.

(b) A mobile station for applying the different mosquito control methods to the different localities.

(2) *Yellow Fever Control Branch:* at Heliopolis.

This branch undertakes the control of *Aedes aegypti* in particular, and other mosquito species in general, within a radius of 2-3 kilometers around aerodromes and ports which receive planes or vessels coming from yellow fever infected areas.

The branch has units at : Heliopolis, Suez, Alexandria, Port Said, Luxor, Hurghada, Safaga, Quseir, Ballana and Mersa-Matrouh. The unit at Tor is operated during the pilgrim season only.

(3) *Fly Control Branch :*

Carries out applied experiments in the field for the study of fly populations, binomics and the various methods of fly control. It also carries out laboratory experiments to study the effect of insecticides on the different stages of flies. Experimental stations belonging to this branch are established at:—

Gabal el Asfar, some villages near Gîza (Aboul Nomros, Konayessa, Shubramant and Talbia), some villages in Qaliubia, (Sendion), two summer resorts (Port Said and Suez).

(4) *Ectoparasites Control Branch :*

It carries out different studies on human lice, fleas, bed-bugs and cockroaches. These studies comprise field and laboratory work.

(a) *Field :*

*Lice Control.*—El Gaafra village of a population of 2,500 was chosen to determine the effect on lice of dusting with 10 per cent DDT and 3.09 per cent BHC. The population was divided into three groups, the first two were dusted each with one of the two insecticides with an average dose of about 35 gms. per person, and the third was left without treatment for control.

Lice counts were done by examining the inner surfaces of the inner clothes before and after dusting.

In the case of DDT, lousiness was reduced by 50 per cent. In BHC, the reduction was 95 per cent. The drop was also evident in the average lice per person. So one can say that both insecticides are effective though it was much more conspicuous in BHC., and the reduction was sustained for a period of 5 weeks.

*Fleas :*

During 1950, experiments on *P. irritans* were conducted in Gaafra village with DDT and BHC. in order to :

(1) Evaluate the effectiveness of chemicals on the insect.

(2) Determine the degree of protection that could be maintained to the host by a single treatment.



(3) Study the normal seasonal variation in flea density in Menaya village. El Gaafra village was divided into four almost equal parts and were treated as follows :

5 per cent DDT wettable residual spray, 6.6 per cent BHC wettable residual spray.

5 per cent DDT emulsion residual spray, all at a dose of 40 ccs. per sq/m and the fourth was left without treatment for control.

Three counts were done during weeks 14-18, then treatment started during weeks 18-21 inclusive, then fleas counts followed up to week 48.

*Extent of treatment :*

All floor surfaces of bedrooms, stores, sheds, yards, mats, mattresses and beds. No treatment was applied to the interior walls. It was observed that all chemicals gave good control for 14 weeks, though it was much more conspicuous in BHC than in DDT as was explained in lice control.

The study of the seasonal variation reveals that the peak of infestation was during the months of March and April, also this was observed in October and November.

*Other insects :*

The treatment of 450 houses was carried out to determine the effect of DDT, BHC and Chlordane on cockroaches and bed-bugs. The results obtained were nearly similar with the three insecticides, their effect was much more stronger on bugs than on cockroaches.

Hence in the latter a combined treatment of residual spraying and dusting will be required to give more effect which will last 13 weeks.

*b.—Laboratory :*

A colony of lice is maintained under a temp. of 33°-34° and 60-70 per cent R.H. for the purpose of studying the life cycle of the louse and other biological tests. It is bred on human blood.

Another colony of bed-bugs is also bred for the same reason.

(5) *School of Insect Control :*

*Two schools exist :*

One for malaria and mosquitoes and another for control of other insects. It is intended to amalgamate the two schools into one in the future. Each school gives two courses, a senior course for physicians, engineers and other university graduates, and a junior course for sanitary technicians, laboratory assistants and others of intermediate qualifications.

A practical training is also provided for those having only primary or similar education.

(6) *Workshop :*

Is annexed to the Mosquito Branch at Ein Shams. It carries out :

(a) Car repairs,

(b) Maintenance of sprayers and other equipment, and

(c) Making such scientific apparatus as may be required .

*Activities of the Section :*

(1) *Mosquito Branch-Ein Shams :*

A.—*The experimental station :*

The following experiments were conducted :

- (1) Malaria control by spray painting houses in Ezbet Sarsak with 5 per cent DDT solution at a dilution of 2 grs. per cubic metre twice a year in June and October 1950.



*Results :*

- (a) Disappearance of malaria cases among infants (The ratio for 1949 was 12.5 per cent).
- (b) Compared with the same months for 1949, the positive units gave a reduction in adult mosquitoes exceeding 50 per cent.
- (c) No effect on the larval density.
- (d) Costs = 487 milliems per head per year.

B.—Control of larvae within a radius of 1 kilometer around El Khosous village by means of a 5 per cent D.D.T. solution, weekly from August 1950 till the end of the year.

*Results :*

- (a) Positive anopheline larvae units dropped to 5 per cent of its number before control.
- (b) The ratio of positive anopheline larvae units in habitations dropped to almost one fourth.
- (c) Disappearance of malaria in infants under one year of age (this was 2.5 per cent in 1949). No incidence of new malaria cases throughout the year.
- (d) Costs = 277 milliems per head per year.

From these two experiments it will be noted that either method is effective in malaria control. The choice is determined by the cost. It will be observed, however, that in the Sarsak experiment, the cost of spray-painting was nearly twice the cost of larviciding in El Khosous but it must be pointed out that the number and size of habitations in Sarsak compared to their residents are rather higher than the average namely 118 houses occupied by 500 inhabitants *i.e.*, 4 persons per house of 325 sq. metres as against an average of 5–6 persons per house of 180 sq. metres.

C.—Survey of 14 villages in Qaliubia for mosquitoes and malaria from May till September.

*Results :*

- (a) The most prevalent species of *Anopheles* is *A. pharoensis*, then *A. multicolor* and lastly *A. Coustani*. Of *Culex*, *C. laurenti*, then *C. pipiens* and *C. pusillus*. Other Culicini are *Aedes caspius*, *Uranotaenia unguiculata* and *Theobaldia longiareolata*.
- (b) Of 2,142 blood films from persons of different ages examined for malaria, 33 or 1.5 per cent were positive for benign malaria and 4 or 0.2 per cent for malignant malaria.

These results should be considered with caution since the experiments had to be suspended following the appearance of *A. gambiae* in Nubia and the mobilisation of all the strength of the Section for its control.

*Mobile station :*

A survey of mosquitoes and malaria in Siwa Oasis was undertaken prior to planning control measures next year.

*Results :*

- (a) Anophelines present in order of prevalence :

*A. sergenti*.—Abundant in Khamisa, north and south Siwa, Agormi and Maraki villages, and less abundant in Zeitoun. Breeds mostly in surface water and channels. Enters houses very frequently, *seasonal prevalence* : in July-October. Minimum : February.

*A. multicolor*.—Abundant in North and South Zeitoun and Gerba villages, less abundant in Agormi and Khamisa. Breeds mostly in infiltration water.



*Seasonal prevalence.*—February and March. Minimum August. Enters houses.

*A. algeriensis.*—Mostly found in East and West Maraki, Zeitoun, North Siwa and Agormi villages; rare in Gerba and South Siwa. Breeds in surface water.

*Seasonal prevalence.*—February and March, rare in July–November; was not found as adults in houses.

(b) *Malaria incidence in infants.*—25 per cent (96 blood films were taken out of which 24 proved positive: 16 malignant and 8 quartan).

In children 1–4 years old: 50 per cent (54 specimens were taken, 26 positive: 21 malignant and 5 quartan).

In children 5–12 years old: 20.4 per cent (132 specimens were taken, 27 positive: 22 malignant and 5 quartan).

In adults: 10.3 per cent (132 specimens were taken, 24 positive: 15 malignant and 9 quartan).

All specimens were taken in November and therefore malaria during that month was hyper endemic.

The Section will continue this survey and inter treatment next year.

#### *Spray-painting team:*

16,176 buildings were spray-painted (having a total area of 50,764,318 square meters. These include aerodromes, government buildings, Sarsak, Nubia, etc. (see table 155).

#### *Laboratory:*

See table 156 for larvae identified and table 157 for adults.

#### *Malaria School:*

(a) Senior course of 3 months was given twice in 1950 for 6 and 9 graduates—all except one passed.

(b) Junior course of 2 months was given twice for 14 and 12 students, 4 failed.

#### *Gambiae campaign in 1950:*

Nubia was invaded for the second time by *A. gambiae* in September 1950. Region of infiltration extended 80 kilometers from Ballana in the south to Genena and Shobak in the North (near Eneba). The first larva was collected on 9th September 1950, while the last one was collected on October 24, 1950. Total positive *gambiae* larvae was 18. Control started on September 21st., preliminary measures having been taken from September 9th. to 20 th. Not a single case of malaria was recorded.

A separate report is compiled about this campaign. Reference is made here to the *A. Gambiae* first invasion of Egypt in 1942 for comparison only. Whereas in 1942, the mosquito reached Assiut *i.e.* 800 kilometers North, accounted for more than 100,000 deaths due to malaria and required 3 years to eradicate, it did not exceed 80 kilometers North, caused no deaths and took six weeks to eradicate.

The outlines of the control measures were as follows:

1.—Prevention of the Northward infiltration of the insect by means of flitting and spray-painting all means of transport with 0.5 per cent pyrethrum in kerosene and 5 per cent D.D.T. solution.

3,523 railway carriages were flitted and 3,094 were spray-painted.

3,967 floating units were flitted and 1,174 rooms were spray-painted.

2,774 vehicles were flitted only.

860 litres of pyrethrum solution and 6,172 litres of 5 per cent DDT solution were consumed.



## 2.—Survey :

292,583 units were surveyed for larvae within the infected area. 18 only were positive for *A. gambiae*. Outside the infected area, 13,204 units were surveyed and 242 were positive for other anophelines (during the period September to December).

For adult mosquitoes, 34,245 houses were surveyed and only one was positive for *A. gambiae* within the infected area. Outside the infected area 1,407 houses were surveyed and all found negative (from September to December, 1950).

## 3.—Larviciding :

Breeding places were sprayed with 5 per cent DDT in malariol. 29,410,851 units were sprayed and 20 tons of malariol and a ton of DDT were consumed.

## 4.—Adulticiding :

Three teams, each of 100 members were formed for spray-painting inner surfaces of houses. The first worked from Kom-Ombo to Aswan, the second from Aswan to Amberkab and the third from Amberkab till the borders between Egypt and the Sudan. 25,000 houses were spray-painted by the first team, 9,000 by the second and 13,500 by the third. 29.5 tons of commercial DDT and 6.5 tons of gammexane were consumed.

Cost of spray-painting was 1.3 milliems per square meter, 38.4 m. per house and 13.5 m. per head.

## YELLOW FEVER CONTROL BRANCH

Control of yellow fever is carried out by :—

- (a) Prevention of the entry of the disease through an infected person or an infected mosquito arriving in an aircraft or a steam ship. This is undertaken by the Quarantine Department.
- (b) Control of mosquitoes in general and *Aedes aegypti* in particular inside and within 2–3 kilometers around aerodomes.

This is carried out by the Insect Control Section. Reference has already been made to units of the Yellow Fever Control Branch.

Work at Luxor and Alexandria airports was stopped this year since no planes from yellow fever areas landed in these airports.

## Spray-painting :

Aerodrome buildings were spray-painted with 5 per cent DDT solution. Almaza military aerodrome, Cairo airport and Alexandria air-port were sprayed three times. Surface area sprayed was more than 5 million square meters. 3½ tons of 25 per cent DDT emulsion and 3.2 tons of 10 per cent gammexane solution were consumed.

## Larval Survey :

466,710 houses were surveyed for *Aedes aegypti*, 10 units were positive for larvae of this mosquito and 2,340 for other larvae (Table 158).

*Aedes aegypti* was only found in Hurghada and Quseir during the months of July, August, September, October and November (Table 159).

## FLY CONTROL BRANCH

### Units of the Branch :

Villages in Giza Province.—Talbía, Tersa, Konaysa, Abul Nomros, Shubramant.

Villages in Menoufia Province.—Agayza, Omkhnán, Shubra Kebala.

Villages in Qaliubia Province.—Sindion, Gabal el Asfar.

Villages in Sharkia Province.—Inshas,

Towns.—Port-Said and Suez,

Oases.—Siwa,



### *Estimation of Fly Density :*

The grid method was used and results of the effect of insecticides were entered as follows :

Poor result : Fly count 50 or more.

Fair result : „ from 20-50.

Good result : „ less than 20.

### *Control of flies in the village :*

A.—By dusting breeding places with insecticides diluted with phosphate rock at an average of 10-12 grs. of powder per sq. meter.

(Breeding places include : manure heaps, chicken-houses, latrines, dung, stables and and garbage).

### *Results of different insecticides :*

(1) Good or satisfactory : using 2.5 per cent chlordane powder fortnightly from September-middle of October.

(2) Moderate : using 1.3 per cent gammexane alfa weekly from April to June and 5 per cent toxaphene fortnightly from middle of September-October.

(3) 4% gammexane, 2.5% toxaphene weekly, 0.3% gammexane alfa fortnightly.

### *B.—Spraying breeding places with chlordane :*

This was carried in Sindion at an average of 68 ccs. to the square metre of a 5 per cent chlordane aqueous suspension.

This gave good results for 2 weeks and then the effect deteriorated.

The cost is high compared to the result of the process.

### *C.—Spray-painting houses with 6 per cent gammexane DDT and Chlordane suspension :*

These gave good results in the 1st and 2nd applications for 5 weeks and in the 3rd., the effect was for two weeks only. Samples of flies were collected and examined in the laboratory and proved to be resistant to the insecticides. Resistance therefore is probably acquired after 8-9 weeks from the last application of insecticide. Resistance was overcome by the use of 5 per cent chlordane suspension at the rate of 2 grams. per sq. metre.

Good results were obtained at Inshas using DDT emulsion at the rate of 2 grams. per sq. metre which lasted 5 weeks. The second application of the same insecticide failed to give the former effect. In September, using 2.5 per cent chlordane suspension at the rate of 1 gm. per sq. metre. It gave good results for 3 weeks.

### *Fly control at Gabal el Asfar (Sewage Farm) :*

Both DDT and Gammexane spray-painting of houses failed to reduce the density of flies.

Nor was it possible to judge the result of dusting the drying basins as these were flooded with sludge after dusting. At any rate we can say that spray-painting and dusting failed to give any result at Gabal el Asfar.

### *Fly Control in Towns :*

Port Said.—In 1949, good results were obtained by dusting breeding places every 2-3 weeks together with fogging, using Tifa machine, and spray-painting hospitals.

In 1950, owing to some local difficulties, the operations in Port Said were not regular and intervals between the 3rd., 4th., and 5th applications were prolonged which resulted in the failure of the last two applications.

*Suez.*—The same method of control as in Port Said was applied to Suez. Moreover restaurants and other establishments for the preparation or sale of foodstuffs were spray painted. Results were satisfactory for only a short period.

The reason may be due to overflow of cesspits in the poorer districts which resulted in an increase in the fly population.

*Laboratory Tests :*

- (1) *Materials tested.*—Pyrethrin and pyrenon were tested and compared to pyrethrum. They were found to be comparatively weaker.

M.E.S.C.A. and Volatex thermal smokes proved to have no effect. Vulcan electric bulb killed flies after one hour.

- (2) *Fumigant action.*—Chlordane was found to have more pronounced effect than either DDT or Toxaphene.



TABLE No. 155.—SPRAY-PAINTING OPERATION IN 1950

Place	Date		Places painted		Surfaces painted in sq. metres	Insecticides used ( in kilograms )				
	From	to	houses	rooms		Pure DDT. powder.	Water sus. 50% DDT.	Emul. 25% DDT.	Emul. L. G. 110 Gamma	Water sus. 15% Gamma
Almaza air-port ...	25/ 2	1/ 3	55	327	—	6	—	320	—	—
Cairo "	5/ 3	14/ 3	80	733	—	—	—	543	—	—
Houses of staff ...	25/ 3	5/ 4	20	143	—	1.4	—	78	—	—
Alexandria air-port	8/ 4	9/ 4	139	—	—	—	—	96	—	—
Sarsak ...	14/ 6	19/ 6	118	311	—	—	—	270	—	—
Almaza air-port ...	25/ 6	29/ 6	58	378	—	—	—	372	—	—
Cairo "	1/ 7	11/ 7	85	872	—	—	—	834	—	—
Convales. colony ...	21/ 7	30/ 7	136	670	—	—	—	—	78.1	—
Port-Tewfik sea-port ...	5/ 8	7/ 8	23	116	—	—	—	864	44 6	—
Abu Zaabal worker's houses	19/ 8	30/ 8	278	1,648	—	—	—	1,070	—	—
Aldxandria air-port	21/ 8	23/ 8	40	144	—	—	—	138	—	—
Mental Hos. ...	9/ 8	10/ 8	38	772	—	—	—	840	—	—
Tor Quarantine ...	11/ 9	14/ 9	333	1,560	54	—	—	1,368	—	—
Sarsak ...	30/ 9	5/10	120	428	—	—	—	336	—	—
Almaza air-port ...	7/10	12/10	56	430	—	—	—	480	—	—
Cairo "	16/10	31/10	88	970	38	—	—	702	32.8	—
Convalescents colony ...	4/11	12/11	128	629	—	—	—	—	60.9	—
Nubia ...	14/10	21/12	14,381	41,614	10,698	—	4,261	11,409	—	3,061.
	—	—	16,176	51,445	10,790	7.4	4,261	19,720	216.4	3,061.

TABLE No. 156.— LARVAE IDENTIFIED IN THE LABORATORY DURING 1950.

Locality	Total No. of specimens	Anopheles	Culicines	Constanti	Algeriensis	Pharoensis	Sergenti	Multicolor	1st. stage	Urenotænia	Thioaldia	A. aegypti	A. caspius	A. detritus	C. pipiens	C. laurenti	C. pusillus	C. deserticola	C. poicilepes	C. univittatus	Others
Khosous ... ..	793	76	739	—	—	75	—	—	1	2	1	—	84	—	482	170	—	—	—	—	—
Sarsak... ..	1,351	770	732	9	—	759	—	—	2	1	12	—	100	—	191	412	4	—	—	—	2
Ezbet el Nakhl...	992	236	818	20	—	216	—	—	—	—	44	—	48	—	599	127	—	—	—	—	—
Gabal el Asfar ...	876	122	826	5	—	117	—	—	—	6	3	—	159	—	179	475	1	—	—	3	—
Khanka ... ..	2	1	1	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Qaliubia ... ..	2,593	2,067	1,143	10	—	2,047	—	6	4	3	24	—	166	—	211	720	7	9	—	—	3
Siwa ... ..	2,595	1,899	933	—	108	—	1,361	414	16	41	9	—	723	3	86	4	57	4	2	—	4
Alexandria ... ..	1,506	61	1,560	56	—	6	—	—	—	44	20	3	410	—	850	223	7	—	2	—	6
Mersa Matrouh ...	11	—	13	—	—	—	—	—	—	—	4	—	—	—	7	—	—	—	—	—	2
Suez ... ..	17	—	17	—	—	—	—	—	—	—	—	—	1	—	16	—	—	—	—	—	—
Hurghada ... ..	23	—	23	—	—	—	—	—	—	1	—	—	—	20	2	—	—	—	—	—	—
Quseir ... ..	10	—	10	—	—	—	—	—	—	—	—	—	—	—	9	1	—	—	—	—	—
Heliopolis ... ..	590	36	569	2	—	32	—	—	2	—	5	—	24	—	458	72	—	—	1	—	9
Luxor ... ..	182	3	179	—	—	1	—	1	1	—	1	—	5	—	155	17	—	—	—	—	1
Ballana ... ..	6	—	7	—	—	—	—	—	—	—	1	—	1	—	3	2	—	—	—	—	—



TABLE No. 157.—DETAILS OF ADULT MOSQUITOES EXAMINED IN THE LABORATORY IN 1950

Locality	Total No. of specimens	Anophelini	Culicini	Anopheles			Culicini			
				Pha-roensis	Sergenti	Multicolor	Theo-baldia	A. aegypti	A. caspius.	Culex.
Khosous ... ..	2,085	77	2,061	77	—	—	—	—	5	2,056
Saisak ... ..	764	285	671	285	—	—	1	—	25	645
Ezbet el Nakhl ... ..	1,001	14	1,001	14	—	—	4	—	4	993
Gabal El Asfar ... ..	600	6	623	6	—	—	—	—	43	581
Khanka ... ..	5	—	5	—	—	—	—	—	—	5
Mobile Units ... ..	1,599	685	1,479	685	—	—	11	—	17	1,451
Siwa ... ..	1,501	2,193	329	1	13	884	—	—	38	201
Suez ... ..	1	—	1	—	—	—	—	—	—	1
Heliopolis ... ..	6	—	6	—	—	—	—	—	—	6

TABLE No. 158.—YELLOW FEVER BRANCH REPORT IN 1950.

	No. of houses examined	No. of units examined	No. of closed houses	No. of closed units.	No. of vacant houses	No. of vacant units	No. of new houses	No. of new units	No. of inaccessible houses.	No. of inaccessible units	No. of houses posit. for A. aegypti	No. of U. P. for A. aegypti	No. of houses P. for other mosquitoes	No. of U. P. for other mos.	No. of houses posit. for pupae	No. of units posit. for pupae.	No. of open lands posit. for larvae	No. of open lands posit. for pupae	No. of open lands positive for Aedes aegypti
January ...	43,028	174,432	3,249	9,707	599	754	218	419	152	946	—	—	25	25	—	—	231	—	—
February...	42,345	159,565	2,830	8,066	427	122	238	444	161	882	—	—	20	20	—	—	201	—	—
March ...	40,793	171,164	3,432	9,158	336	—	331	468	204	1,068	—	—	28	28	—	—	253	—	—
April ...	49,289	210,371	4,033	12,020	421	620	360	833	271	1,442	—	—	—	34	—	—	426	—	—
May. ...	41,072	117,904	2,919	8,064	446	583	205	470	114	519	—	—	—	36	—	—	230	—	—
June. ...	32,986	70,053	2,641	7,456	470	546	204	441	38	161	—	—	44	44	—	—	110	—	—
July. ...	40,371	85,598	2,767	11,106	427	583	257	672	38	162	1	1	48	48	—	—	94	—	—
August. ...	33,171	83,120	3,320	11,439	503	661	244	595	30	104	4	4	11	11	—	—	57	—	—
September ...	29,461	63,178	2,177	8,390	353	567	171	426	31	94	1	1	16	24	—	—	31	—	—
October ...	41,358	87,583	3,256	11,273	379	502	320	721	29	147	1	1	63	63	—	—	84	—	—
November ...	36,995	80,332	3,344	7,289	421	402	224	559	38	163	3	3	10	12	—	—	116	—	—
December ...	466,710	77,999	2,414	7,950	228	330	347	766	39	162	—	—	4	6	—	—	104	—	—
TOTAL. ...	466,710	1,381,299	36,182	113,918	5,029	6,710	3,119	6,819	1,145	5,850	10	10	271	351	—	—	1,929	—	—

18 specimens of Aedes aegypti larvae were collected by the surveying team of the Branch.



TABLE NO. 159.—Aedes Aegypti Larvae Found in 1950 in Yellow Fever Areas

	January	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Alexandria ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Mersa Matruh ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Port Said ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Suez .. ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Hurghada ... ..	—	—	—	—	—	—	1	14	1	—	3	—	19
Quseir ... ...	—	—	—	—	—	—	—	8	—	1	—	—	9
Safaga ... ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Cairo ... ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Luxor ... ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Ballana ... ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Tor ... ...	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL ... ..	—	—	—	—	—	—	1	22	1	1	3	—	28

All larvae were found in Zeers.

## Chapter XXI.—Bilharzia Snail Control

*Snail Control Work* has been gradually expanding in the last decade to cover the provinces of Giza, Aswan, Qena, Beni Suef, Menoufia, Qaliubia and Behera and also the Oases. During 1951 the work has been substantially extended in the Delta provinces. The large territory comprised between the two branches of the Nile North of Menoufia, formerly Gharbia province, but lately divided into Fouadia and Gharbia provinces, has been tackled from 3 centres: Tanta, Bilqas and Kafr-el-Sheikh, forming the head-quarters of 3 new inspectorates. The streams were measured and mapped to a large extent and partially surveyed for snails.

In Behera province, where control has slowly spread from a Southern to a Middle Behera Inspectorate, the territory brought under control grew large enough to warrant the formation of a new North Behera Inspectorate with headquarters at Siouf.

In Beni Suef province, two strips of territory were added: one south of the administration boundaries, to include the intakes of various main streams and another west of Bahr Youssef where additional territory was brought under cultivation in recent years.

In Aswan province, several irrigation schemes South of Kom Ombo were also included.

A special effort was made by the training centres to train new junior staff for the Delta Provinces. A total of 410 trainees attended the classes of which 341 were subsequently engaged while 69 either dropped out or failed to pass the examination. Owing to financial and other difficulties this training had to be curtailed later and the work in the Delta could not be expanded to the full.

The limitations of trained personnel coupled with a chronic lack of hired labour has caused patchy application of control in the new provinces and retardation of control measures in certain areas of the old provinces.

The situation and the success of control during any year is assessed by comparing the main spring survey of the year with that of the following year, which is made after the treatments, taking into consideration the biological necessities for surveying in spring and not in winter. A comparison of the spring surveys of 1950 and 1951 is given in tables 160 and 161 and the extent of the intervening treatments in Table 162.

In the 3 Oases, no *Bulinus* was found, except one new infection in Baharia, in the terminal streams of a spring which had not been infected with this species. *Limnaea* is still found.

### *Application of Law 29/1948.*

During the year 1950 the provincial field staff of the section registered 138,241 distributaries measuring 52,943 kms. and belonging to 190,188 owners. 75,670 notifications were sent out concerning the clearance of 51,817 streams. 8,890 streams measuring 4,416 kms. were cleared by 10,613 owners. The section cleared, at the owners' expense, 21,831 streams, measuring 11,228 kms. and belonging to 67,036 owners. Costs amounting to L.E. 32,547 will be collected together with land taxes.



TABLE No 160.—SURVEYS OF STREAMS BY NET AND PALM-LEAF TRAPS: NUMBERS AND LENGTHS INFESTED WITH *BULINUS* AND *PLANORBIS* SNAILS;  
COMPARISON OF THE SPRING SURVEYS 1950 AND 1951

Province or Inspectorate		Year	Numbers				Lengths in kms.									
			Surveyed	Infested		with <i>Bulinus</i>		with <i>Planorbis</i>	Surveyed	Infested		with <i>Bulinus</i>	with <i>Planorbis</i>			
				%						%						
Fayoum	...	...	...	...	...	1950 1951	104,912 165,581	3,379 1,860	3 1	3,379 1,860	0 0	27,702 36,490	3,727 2,648	13 7	3,727 2,648	0 0
							30,260 29,480	2,093 1,674	7 6	2,093 1,674	{ a few }	7,399 7,414	2,589 2,372	35 32	2,589 2,372	{ a few }
Giza	...	...	...	...	...	1950 1951	20,165 24,670	1,257 925	6 4	1,257 925	0 0	4,763 5,429	882 918	19 17	882 918	0 0
							10,655 11,712	653 719	6 6	653 719	0 0	2,833 3,142	690 743	24 24	690 743	0 0
Beni-Suef	...	...	...	...	...	1950 1951	16,548 17,760	4,172 3,471	25 20	4,172 3,471	0 0	5,261 5,847	2,302 2,568	44 44	2,302 2,568	0 0
							30,249 33,211	3,060 3,012	10 9	2,901 2,805	410 429	8,739 10,380	2,780 2,736	32 26	2,707 2,839	359 386
Qaliubia	...	...	...	...	...	1950 1951	33,741 38,257	5,150 5,238	15 14	4,995 5,050	766 917	11,138 13,187	5,545 5,810	50 44	5,516 5,730	600 818
							38,110 30,447	6,361 5,555	17 18	5,203 4,519	2,497 2,204	12,330 12,245	5,222 4,541	42 37	4,861 4,026	1,818 1,564
South Behera	...	...	...	...	...	1950 1951	43,517 41,703	13,709 8,699	32 21	8,669 5,461	10,721 5,903	14,050 13,032	6,848 4,560	49 35	5,143 3,444	4,678 3,102
							25,387	6,253	25	4,562	3,916	9,671	3,879	40	4,011	2,552
Gharbia	...	...	...	...	...	1950 1951	328,157 348,208	39,834 37,406	12 10	33,322 31,046	14,394 13,369	94,215 116,837	30,585 30,775	32 26	28,237 29,299	7,455 8,422

TABLE No. 161.—INTENSITY OF INFESTATION IN STREAMS INFESTED WITH THE SNAIL CARRIERS  
OF BILHARZIASIS, MAIN NET SURVEYS OF SPRING 1950 AND 1951

Province or Inspectorate	Year	Bulinus truncatus			Planorbis boissyi		
		Dips in infested streams	snails dipped out	snails/100 dips	Dips in infested streams	snails dipped out	snails/100 dips
Fayoum ... ..	1950	354,325	19,851	6	—	—	—
	1951	320,683	11,736	4	—	—	—
Giza ... ..	1950	156,912	16,848	11	—	—	—
	1951	132,498	13,281	10	—	—	—
Aswan ... ..	1950	93,224	26,064	28	—	—	—
	1951	59,583	6,238	10	—	—	—
Qena ... ..	1950	43,551	1,932	4	—	—	—
	1951	46,317	2,137	5	—	—	—
Beni Suef ... ..	1950	265,608	40,888	15	—	—	—
	1951	236,643	13,348	6	—	—	—
Qaliubia ... ..	1950	107,280	11,711	11	22,971	4,470	20
	1951	117,990	11,636	10	23,442	2,448	10
Menoufia ... ..	1950	533,202	63,298	12	68,931	27,904	40
	1951	541,932	72,364	13	84,390	28,918	34
South Behera ... ..	1950	352,671	57,706	16	156,198	69,844	45
	1951	253,983	40,746	16	116,613	44,833	38
Middle Behera ... ..	1950	393,195	49,125	13	404,322	105,834	26
	1951	234,261	30,132	13	236,973	64,339	27
Gharbia ... ..	1951	344,031	43,872	13	324,804	54,659	17
TOTAL ... ..	1950	2,062,425	250,532	12	652,422	208,102	32
	1951	2,072,587	235,392	11	786,222	195,197	25

Note The total number of dips taken in 1950 was 10,608,349 and in 1951, 13,881,642.

TABLE No. 162.—TREATMENT OF STREAMS INFESTED WITH THE SNAIL VECTORS OF  
BILHARZIASIS, APRIL 1950 — MARCH 1951

Province or Inspectorate	Clearance			Sulphation			
	Numbers	Kms.	man-days	Numbers	Kms.	man-days	Tons Cu So 4
Fayoum ... ..	777	937	17,081	4,455	4,213	8,845	290
Giza ... ..	2,144	1,374	23,006	2,624	2,317	3,735	236
Aswan ... ..	632	697	11,085	1,236	902	2,880	140
Qena ... ..	1,458	1,099	6,064	1,107	970	3,237	139
Beni Suef ... ..	3,327	2,124	41,375	4,549	3,061	5,497	226
Qaliubia ... ..	105	113	2,462	2,892	2,305	4,923	204
Menoufia ... ..	3,232	3,253	52,350	2,475	3,252	6,911	229
South Behera ... ..	2,577	1,853	28,164	4,458	3,437	4,960	237
Middle Behera ... ..	5,291	2,220	46,068	13,709	6,273	8,061	210
Gharbia ... ..	685	598	11,772	778	862	977	35
TOTAL ... ..	20,228	14,268	239,427	38,283	27,592	50,026	1,946



The Laboratory :

(1) Routine *examinations of snails* for bilharzia infection were made in the main laboratory on snail samples from Giza, Qaliubia, Menoufia and G'arbia provinces. 6,526 *Bulinus* from 45 localities and 9,324 *Planorbis* from 37 localiti s were examined and 13 samples showed infection.

(2) Since it is well known that the concentration of CuSO<sub>4</sub> solutions decreases rapidly in nature after application to the streams, the effects of various factors on 30 p.p.m. solutions of copper sulphate in Nile water were investigated :

(a) *in vitro* ; the following results, demonstrating the neutralizing effects of silt and mud were obtained in 4 litre aquaria at temperatures ranging from 19°-31° C.

APPROXIMATE CuSO<sub>4</sub> CONCENTRATIONS, GIVEN AS A FRACTION OF THE ORIGINAL (30 p.p.m.)\* AFTER EXPOSURE TIMES OF:

Solution in	1 hour.	1 day	2 days	3 days
Distilled water (control) ... ..	1	1	1	1
Nile water only ... ..	2/3	1/2	1/3	1/7
Nile water with mud bottom (very silty) ... ..	1/2	1/6	1/25	1/70

\*(30 p.p.m.=1)

(b) in an *environmental laboratory pond* of 0.9 cubic metres capacity containing clear water over 8 cms. of mud and some aquatic vegetation, at temperatures varying from 10° to 30° C.

TABLE 5.—APPROXIMATE AVERAGE DECREASE OF CONCENTRATION OF A 30 p.p.m. CuSO<sub>4</sub> SOLUTION IN NILE WATER, FROM VARIOUS MEASUREMENTS, AFTER EXPOSURE TIMES OF :

	5 min.	2 hrs.	1 day	2 days	3 days
Calculated initial concentration 30 p.p.m.=1 ... ..	2/3	1/3	1/6	1/10	1/15

(c) The *stabilizing effect of citric acid*, in vitro, is illustrated as follows :

30 p.p.m. solution of CuSO <sub>4</sub>	Exposure time				
	0 hr	2 hrs	24 hrs	48 hrs	72 hrs
In Nile water (control) ... ..	30	15.7	11.8	7.8	7.8
Same, with 5 p.p.m. citric acid ... ..	30	23.6	15.7	15.7	13.8

## Chapter XXII.—Leprosy Control

Every effort is being made since 1929 for the detection and isolation of lepers. Central leprosy clinics with segregation quarters have been provided in chief towns of provinces. Four branch clinics in connection with each are provided in neighbouring district towns. Under Law No. 131 of 1946, the isolation of lepers is now compulsory to protect the community against this fatal disease and ensure care being taken of leprosy patients.

### *Statistics :*

Examination of 2,055 patients presenting themselves to leprosy units revealed that 1,156 were leprosy as compared with 2,060 and 1,214 respectively in the previous year. Review of the records revealed that 374 lepers were repeatedly recorded leaving 783 new lepers during the year. This brings the total number of new lepers recorded since leprosy control was started in 1929 until the end of the year under review to 12,484.

The following Table No. 163 gives the details of patients returned positive for leprosy by the different units :

TABLE No. 163

Unit	Branches	No. Lepers
Abou Zaabal Leprosy Colony ... ..	—	307
Amria Leprosy Colony ... ..	—	82
Cairo Leprosy Hospital ... ..	Main Clinic ... ..	2
	Embaba ... ..	39
	Karamidan ... ..	106
	Qaliub... ..	12
	TOTAL ... ..	159
Zagazig Leprosy Clinic ... ..	Main Clinic ... ..	27
	Abou Hammad ... ..	—
	Shebin el Kanater ... ..	15
	Minia el Kamh ... ..	4
	Abou Kebir ... ..	6
	TOTAL ... ..	52
Souhag Leprosy Clinic ... ..	Main Clinic ... ..	34
	Tema ... ..	15
	Gerga ... ..	15
	Tahta ... ..	14
	Akhmim ... ..	5
	TOTAL ... ..	83
Tanta Leprosy Clinic ... ..	Main Clinic ... ..	63
	Mahalla Kobra ... ..	9
	Zefta ... ..	14
	Kallin ... ..	5
	Dessouk ... ..	16
	Kafr el Zayat ... ..	1
	TOTAL ... ..	106
Minia Leprosy Clinic ... ..	Main Clinic ... ..	36
	Beni Mazar ... ..	7
	Abou Kerkas ... ..	9
	Samallout ... ..	12
	Mallawi ... ..	15
	TOTAL ... ..	79
Alexandria Leprosy Clinic ... ..	Main Clinic ... ..	21
	Damanhour ... ..	14
	Rosetta ... ..	7
	Edku ... ..	—
	TOTAL ... ..	42



TABLE No. 163 (contd.)

Unit	Branches	No. Lepers
Mansoura Leprosy Clinic ... ..	Main Clinic ... ..	31
	Damietta ... ..	4
	Sinbellawein ... ..	7
	Sherbin ... ..	4
	Dekernis ... ..	8
	TOTAL ... ..	54
Shebin el Kom Leprosy Clinic ... ..	Main Clinic ... ..	22
	Menouf ... ..	13
	Ashmoun ... ..	8
	Quesna ... ..	8
	Benha ... ..	11
	Tala ... ..	8
	TOTAL ... ..	70
Qena Leprosy Clinic ... ..	Main Clinic ... ..	14
	Luxor ... ..	10
	Koïs ... ..	10
	Deshna ... ..	2
	Nag' Hammadi ... ..	9
	TOTAL ... ..	45
Beni Suef Leprosy Clinic ... ..	Main Clinic ... ..	74
	Beba ... ..	3
	TOTAL ... ..	77

A total of 974 lepers were in segregation in Abu Zaabal and Amria Colonies, Cairo Hospital and segregation annexes of clinics at the end of 1950 as against 923 at the end of 1949. Details are as follows:—

Abou Zaabal Colony ... ..	637
Amria Colony ... ..	282
Souhag Clinic ... ..	5
Tanta Clinic ... ..	6
Minia Clinic ... ..	17
Mansoura Clinic ... ..	16
Qena Clinic ... ..	11

The average rate of attendance for treatment was 22% as shown below:

TABLE No. 164.

Month	No. of attendances (visitors)	Rate Percent
January ... ..	11,313	17
February ... ..	10,352	22
March ... ..	11,026	24
April ... ..	11,070	23
May ... ..	13,835	23
June ... ..	10,785	22
July ... ..	9,428	19
August ... ..	12,904	21
September ... ..	9,359	19
October ... ..	13,052	21
November ... ..	10,889	33
December ... ..	10,317	21

*Treatment :*

Hydnocarpus oil was used in the treatment of all lepers. Every leper received a weekly intramuscular injection of 4–5 ccs. of the oil. Treatment with Sulfa compounds was tried at Abou Zaabal and Amria Colonies subject to introduction in other units. Good results were obtained.

A total of 128,058 injections weighing 583 kgs. were given to lepers this year as against 117,903 injections weighing 529 kgs. in the previous year. The number of dressings applied to patients was 203,134 as against 173,822 last year. Details are as follows :

TABLE NO. 165

Month	Number of injections	Quantity of oil	N. of dressings
January ... ..	10,524	44.871	14,880
February ... ..	19,782	44.151	13,530
March ... ..	10,410	38.212	13,576
April ... ..	10,599	49.862	14,964
May ... ..	13,173	60.650	19,011
June ... ..	10,610	48.581	16,921
July ... ..	8,899	39.959	16,366
August ... ..	13,329	62.180	21,521
September ... ..	8,219	37.375	15,516
October ... ..	12,296	55.971	19,751
November ... ..	9,855	44.143	17,984
December ... ..	10,362	46.670	18,114
<b>TOTAL ... ..</b>	<b>128,058</b>	<b>582.629</b>	<b>203,134</b>

In addition to treatment of leprosy, patients received treatment for other accompanying diseases.

ABOUL ZAABAL COLONY

*Patients :*

The remaining female residents at Cairo Leprosy Hospital have been accommodated at Abou Zaabal Colony. The hospital will be used as a preventorium for the accommodation of children of leprous parents. Of 429 lepers admitted to the colony during the year, 307,(208 females and 99 males) were segregated for the first time and 122 had been inmates and discharged for different reasons, as against 279,159 and 120 respectively during the previous year.

The number of lepers in segregation at the end of the year was 637 as against 437 in the previous year.

*Technical Works :*

(1) Of the 307 new admissions, 170 were of the anesthetic type, 18 of the tubercular type and 119 of the mixed type. Examination of the 122 re-admissions revealed that 45 were of the anesthetic type, 8 of the tubercular and 69 of the mixed type.

(2) Samples from the nose and skin were taken from the 637 lepers in segregation for bacteriological examination and gave the following results : 258 positive for nose only, 129 positive for skin only, 190 positive for nose and skin and 60 negative for nose and skin. Of these 17 were positive and became negative ; 3 were negative and became positive and 617 remained without change.



(3) Clinical examination of all the inmates revealed that the condition of 450 lepers improved, 141 remained stationary and 46 deteriorated.

(4) 42 cases of perforating ulcers were met with. All were treated and improved except 17 cases which were still under treatment at the end of the year.

(5) Of 420 cases of lepra reactions met with, 84 were severe. All were treated and improved except 25 cases (including 6 cases of severe reaction) which were still under treatment at the end of the year.

(6) A total of 104,785 dressings were applied to patients during the year.

(7) 138 surgical operations were performed in the colony as follows: 63 incisions, 72 widening of incisions, 1 amputation, 2 piles.

(8) Of 730 cases of skin diseases met with, 48 were treated for scabies and all recovered; 668 for dermatitis and all recovered except 37 which were still under treatment at the end of the year; 3 for tinea and all 3 were still under treatment, and 11 for urticaria and all were cured.

(9) Venereal diseases cases (syphilis) met with numbered 27 and all were treated.

(10) Medical cases treated during the year numbered 411 as follows 2 cholecystitis, 355 constipation and enteritis, 7 heart failure and 47 general debility. All cases were treated and cured.

(11) 137 cases of chest diseases were met with as follows: 3 pulmonary tuberculosis, 3 asthma, all under treatment; 12 acute bronchitis, 116 bronchitis. All were treated.

(12) The ophthalmic clinic was attended by patients 3,737 times. 64 ophthalmic operations were done this year as follows: 8 probing and syringing of lacrymal canals, 9 skin and muscle, 13 trachoma, 18 follicles (pitching), 1 excision of the eye, 4 conjunctivoplasty, 5 leprotic masses, 6 trichiasis (snellen's operation).

The ophthalmologist visited the colony 37 times during the year.

(13) 425 lepers were treated in the dental clinic. 60 dental operations were performed during the year, namely, 62 extractions and 3 gum boils. 30 visits to the colony were paid by the dentist.

(14) Cases of intestinal parasites numbered 155, namely 142 bilharzia and 13 ascaris. All were treated and cured.

(15) 842 samples of urine from patients and staff were examined at the colony laboratory and gave the following results: 142 bilharzia, 86 salts and cylindroids, 66 pus and 25 albumen.

(16) Examination of 214 samples of fæces gave the following results: 5 ancylostoma, 25 ascaris and other parasites.

#### *Staff Clinic :*

Resident staff and their families attended the staff clinic 4,345 times or a ratio of 12 visits daily :

#### *Social Activities :*

(1) *School*.—30 lepers attended the day school and 20 the night classes.

(2) *Library*.—A monthly average of 290 lepers attended the library or 10 lepers daily. An average of 160 books were loaned to lepers monthly or 5 books daily.

(3) *Preaching*.—Sermons were delivered weekly with Friday prayers at the mosque of the colony. These had a good effect on the conduct of patients.

(4) *Sports*.—The boy-scout troop of 30 lepers continues its scout exercises with the object of infusing discipline and obedience in young lepers. The two foot-ball teams held a few games during the year.



### *Recreation :*

The inmates were entertained on different occasions and were provided with extra meals during Ramadan and feasts. The canteen provided commodities and the club organised games and recreations.

### *Prison :*

There were 30 lepers remaining in prison on January 1, 1950. 83 leprous prisoners were admitted during the year and 98 released, leaving 15 prisoners in detention at the end of the year.

### *Industrial Activities :*

All the industrial requirements of the colony have been performed by the different workshops which are manned by the lepers. Large amounts of clothes, slippers, mattresses, etc., were manufactured, besides repairs to doors, windows, sanitary installations, etc.

### *Agricultural Activities :*

Some 12 feddans of land have been reclaimed by the inmates. This brings the total area under cultivation to about 115 feddans. Large quantities of various crops were produced during the year. The number of cows kept in the dairy was 50 cows. These yielded 26,237 kgs. of milk. Male calves are slain and the meat served to inmates. Some 5,749 kgs. of meat were provided this year.

### *Power and Pumping Plants :*

551,610 Kilo Watts were consumed in lighting and filters. 1,204,033 cubic metres of fresh water were pumped for irrigation. 114,351 cubic metres of potable water were filtered. 329,400 cubic metres of sewage were drained and used as fertiliser.

The repair workshop undertook all the repairs required by these plants.

## CAIRO LEPROSY HOSPITAL

This hospital was used for the segregation of female lepers. Early in the year, the inmates were accommodated in the special quarters provided within Abou Zaabal Colony. It is proposed to use this hospital as a preventorium for the accommodation of children of leprous parents. Meanwhile, it is used as an out-patient dispensary until funds are allocated.

Of 279 persons presenting themselves to the hospital during the year, 159 suffered from leprosy and the rest from other diseases.

Of the 159 lepers, 15 were of the tubercular type, 91 of the anesthetic type and 53 mixed.

There are 3 out-patient branch clinics in connection of this hospital.

(a) Embaba Branch recorded 39 new cases and 3,669 visits during the year.

(b) Karamidan Branch recorded 106 new cases and 8,499 visits during the year.

(c) Qaliub Branch recorded 14 new cases and 2,445 visits during the year.

Lepers were again treated with hydnocarpus oil given intramuscularly. 14,660 injections weighing 72.918 kgs. of oil were administered and 7,425 dressings applied during the year.

## AMRIA COLONY

The number of lepers in segregation at the end of the year was 282. Hydnocarpus oil was used in treatment. Sulphone compounds were tried in treatment with satisfactory results. 11,587 injections weighing 42.150 kgs. of oil were administered and 19,510 dressings applied during the year.

### *Recreation :*

The same arrangements for entertainment and recreation employed at Abou Zaabal Colony are employed in Amria Colony.



*Drinking Water :*

The colony is supplied with drinking water from El Noubaria filtration plant of the Ministry of War, some 30 kilometres from the colony. Water is pumped to an auxiliary pumping station at Abdel Kader village and thence into two large tanks to be distributed through pipes to the various compounds.

*Light :*

Five electric generators are used for lighting the compounds and roads of the colony. Solar oil is used in driving these generators which are in a bad condition inspite of the few repairs made.

*Guards :*

A camel force composed of a sergeant, two corporals and 18 men kept guard at the colony. For military reasons, half the force was replaced by frontier policemen. This arrangement did not prove satisfactory and arrangements are being made to restore the force to its original formation.

TABLE No. 166.—NUMBER OF PATIENTS IN LEPROSY UNITS DURING 1950 ACCORDING TO THEIR BIRTH PLACES AND RESIDENCE

Units	Cairo		Alexandria		Damietta		Canal		Suez		Behera		Gharbia		Menoufia		Dakahlia		Sharkia		Qaliubia	
	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence
Abu Zaabal Colony	7	17	6	6	—	—	1	1	—	—	14	14	41	42	35	37	41	41	31	27	31	29
Amria	1	1	1	6	1	1	1	2	1	1	1	1	8	7	3	3	10	10	1	1	5	5
Cairo Hospital	7	50	1	1	1	—	—	—	1	1	1	—	1	1	19	6	3	1	6	3	21	22
Zagazig Clinic	—	—	—	—	—	—	—	2	1	1	—	—	—	—	2	—	3	3	3	34	11	12
Souhag	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanta	—	—	—	—	—	—	—	—	—	—	4	4	58	60	13	12	7	6	—	—	—	—
Minia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alexandria	—	—	8	15	—	—	—	—	—	—	16	27	7	6	1	—	—	—	—	—	—	—
Mansoura	—	—	—	—	2	2	—	—	—	—	—	—	6	6	—	—	44	45	1	—	—	—
Shebin el Kom Clinic	—	—	—	—	—	—	—	—	—	—	1	1	—	—	58	58	—	—	—	—	11	11
Qena Clinic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beni Suef Clinic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	15	68	16	28	4	3	2	5	2	3	37	37	121	122	131	116	108	106	7	65	79	79



TABLE No. 166.—NUMBER OF PATIENTS IN LEPROSY UNITS DURING 1950 ACCORDING TO THEIR BIRTH-PLACES AND RESIDENCE. (Cont.)

Units	Giza		Beni Suef		Fayoum		Minia		Assiut		Gerga		Qena		Aswan		Western Desert		Fouadia		Sinai		Abroad		Total	
	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence	Birth	Residence
Abu Zaabal Colony ... ..	24	21	10	12	6	6	18	14	16	15	10	9	10	10	3	3	1	1	1	1	—	—	1	1	307	307
Amria „ .....	3	3	3	2	1	1	1	1	10	9	9	7	14	13	1	1	—	—	6	6	—	—	1	1	82	82
Cairo Hospital ... ..	60	63	4	2	2	—	—	—	13	4	9	2	7	2	2	—	—	—	1	1	—	—	1	—	159	159
Zagazig Clinic ... ..	—	—	—	—	—	—	—	—	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	52	52
Souhag „ .....	—	—	—	—	—	—	—	—	5	5	77	77	1	1	—	—	—	—	—	—	—	—	—	—	83	83
Tanta „ .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	24	—	—	—	—	106	106
Minia „ .....	—	—	—	—	—	—	48	54	97	25	2	—	—	—	—	—	—	—	—	—	—	—	—	—	79	79
Alexandria „ .....	—	—	—	—	—	—	—	—	1	1	4	2	5	1	—	—	—	—	—	—	—	—	—	—	42	42
Mansoura „ .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	54	54
Shebin el Kom „ .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	70
Qena „ .....	—	—	—	—	—	—	—	—	—	—	—	—	40	40	5	5	—	—	—	—	—	—	—	—	45	45
Beni Suef „ .....	4	4	64	64	4	5	4	4	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	77	77
TOTAL ... ..	91	91	81	80	13	12	71	73	73	59	112	97	79	67	11	9	1	1	33	33	—	—	3	21,156	1,156	1,156

TABLE No. 167—ANNUAL STATISTICS OF LEPERS TREATED IN LEPROSY UNITS DURING 1950

Units	No. of Patients			General Notes on Lepers								Transmission of Infection										Type of infection					
	New patients	Negative	Positive	Males	Females	Married	Unmarried	Egyptians	Foreigners	Muslims	Copts	Other religions	Deny Inf.	Admit Inf.	Forgn. Inf.	Fam. Inf.	Father only	Mother	Parents only	Husband	Wife	Sons and daughters	Sisters	Relatives	C.U, Tubercular	Anesthetic	Mixed
Abu Zaabal Colony ... ..	307	—	307	99	208	148	159	306	1	289	17	1	277	30	13	17	2	—	4	—	1	8	2	8	170	129	
Amria Colony ... ..	84	2	82	82	—	28	54	81	1	80	2	—	64	18	8	10	1	—	—	—	—	—	9	6	41	35	
Cairo Hospital ... ..	279	120	159	117	42	90	69	158	1	146	13	—	116	43	16	27	3	—	1	—	—	9	14	15	91	53	
Zagazig Clinic ... ..	112	60	52	38	14	28	24	52	—	51	1	—	45	7	—	7	2	—	—	—	—	—	5	—	21	31	
Souhag " ... ..	83	—	83	64	19	47	36	83	—	70	13	—	82	1	—	1	1	—	—	—	—	—	—	—	—	36	47
Tanta " ... ..	302	196	106	72	43	39	67	106	—	106	—	—	81	25	—	25	3	1	—	—	—	—	14	7	22	57	27
Minia " ... ..	104	25	79	62	17	36	43	79	—	58	21	—	69	10	—	10	6	—	—	—	—	1	3	—	—	59	20
Alexandria " ... ..	90	48	42	27	15	21	21	42	—	42	1	—	42	—	—	—	—	—	—	—	—	—	—	—	4	15	23
Mansoura " ... ..	121	67	54	39	15	14	40	54	—	53	1	—	48	6	—	6	1	—	—	—	—	—	1	4	—	35	19
Shebin el Kom " ... ..	430	360	70	52	18	42	28	79	—	70	—	—	61	9	—	9	2	1	—	—	—	1	2	3	2	47	21
Qena " ... ..	50	5	45	40	5	29	16	45	—	42	3	—	42	3	—	3	3	—	—	—	—	—	—	—	2	29	14
Beni Suef " ... ..	93	16	77	65	12	46	31	77	—	66	11	—	66	11	—	11	3	—	—	—	—	1	2	5	11	29	37
TOTAL ... ..	2,055	899	1,156	757	399	568	588	1,153	3	1,072	83	1	993	163	37	126	27	2	—	5	—	4	39	49	70	630	456



TABLE No. 167.—ANNUAL STATISTICS OF LEPERS TREATED IN LEPROSY UNITS DURING 1950 (contd.)

	Age of Patients on first exam.							Age of Patients on appearance of disease											Duration of Disease						Laboratory findings							
	from 1-10	11-20	21-30	31-40	41-50	51-60	60 and over	from 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	Over 60	One years	Two years	3-5 years	6-10 years	11-15 years	16-20 years	21 and over	Neg. B	Pos. B	Nose	Skin	N. and S.
Abu Zaabal Colony ...	5	39	176	52	25	10	—	2	12	71	110	44	37	14	9	1	2	—	—	—	49	92	115	38	9	4	—	125	182	47	33	102
Amria Hospital...	—	11	25	27	14	3	2	1	7	16	24	7	10	5	5	4	1	2	—	—	3	7	19	23	13	6	11	39	43	1	6	36
Cairo , , ...	3	50	25	25	11	4	1	1	11	23	33	33	26	10	7	8	4	2	1	1	38	46	37	10	6	2	—	79	80	12	9	59
Zagazig Clinic ...	—	22	15	8	4	3	—	—	2	12	12	6	6	8	—	2	2	—	2	—	34	9	7	1	—	1	—	20	32	1	1	30
Souhag , , ...	—	20	18	12	12	11	10	1	2	9	13	16	18	9	2	3	2	5	2	1	1	2	71	7	2	—	—	—	83	36	—	47
Tanta ... , , ...	15	38	23	17	8	4	1	5	21	18	12	14	9	7	8	6	2	1	2	1	45	24	27	7	7	1	—	54	52	13	3	36
Minia ... , , ...	3	18	25	17	14	2	—	—	8	10	12	10	12	11	10	4	2	—	—	—	4	24	41	9	—	1	—	59	20	2	6	12
Alexandria , , ...	1	14	13	5	3	5	1	—	4	9	6	8	4	2	1	1	2	4	1	—	4	7	21	10	—	—	—	14	28	1	7	20
Mansoura , , ...	—	—	35	12	6	1	—	—	—	—	37	9	4	2	1	1	—	—	—	—	15	32	3	4	—	—	—	2	52	32	1	19
Shebin el Kom C.	8	10	25	10	11	6	—	1	8	9	7	11	11	5	5	2	3	5	2	1	5	24	27	13	—	7	—	42	28	5	20	3
Qena Clinic ...	—	11	9	5	13	7	—	—	1	7	6	3	3	5	7	4	7	2	—	—	7	6	22	10	—	—	—	30	15	—	2	13
Beni Suef Clinic	3	13	27	19	11	5	3	2	4	6	12	9	16	8	6	3	3	2	4	2	24	15	18	11	4	3	2	32	45	—	8	37
TOTAL ...	38	246	452	209	132	61	18	13	80	190	284	175	156	86	61	39	30	22	14	6	249	288	408	143	36	19	13	496	660	150	96	414

## PART V.—RESEARCHES AND LABORATORY EXAMINATIONS

### Chapter XXIII.—Summary of the Work of the Department of Laboratories

#### 1.—*Bacteriological Section :*

The total number of specimens examined bacteriologically in the Central, Provincial and Branch laboratories, during the year 1950, amounted to 545,870.

#### 2.—*Clinical Pathological Section :*

3,715 specimens were examined in the Section during the year under review.

#### 3.—*Chemical Section :*

The total number of samples examined chemically in the Central laboratories as well as in the Tanta and Assiut laboratories, during the year 1950, was 93,118.

#### 4.—*Water Section :*

##### (a) *Bacteriological Service :*

The total number of samples of water, aerated water, ice and syrup examined by this service during 1950 amounted to 9,855.

##### (b) *Chemical Service :*

During the year under review, 1,168 samples of water were subjected to chemical analysis.

#### 5. *Antirabic Institute and Hospital :*

During the year 1950, 9,686 patients attended the Institute at Cairo. Of these 9,448 were fully treated.

The number of patients who attended the Antirabic Out-Centres at Alexandria and Luxor amounted to :

Alexandria 1,441 of whom 982 were fully treated.

Luxor 430 of whom 393 were fully treated.

#### 6.—*Serum and Vaccine Laboratory :*

The following vaccines and sera were prepared during the year 1950.

(i) T.A.B. Vaccine...	...	...	...	...	...	1,952,000	ccs
(ii) Anti-cholera Vaccine	...	...	...	...	...	1,882,000	ccs
(iii) Anti-plague Vaccine	...	...	...	...	...	210,000	ccs
(iv) Typhus Vaccine	...	...	...	...	...	12,000	ccs
(v) Calf Lymph Vaccine	...	...	...	...	...	15,750,000	doses
(vi) Diphtheria prophylactic (Formal Toxoid)	...	...	...	...	...	1,838,500	ccs
(vii) Diphtheria Antitoxin	...	...	...	...	...	{3,000 Amp. of 10,000 I.U. each. 3,798 Amp. 4,000 I.U. each.	
(viii) Anti Tetanus	...	...	...	...	...	940,569	ccs
(ix) Anti-Scorpion	...	...	...	...	...	810,148	ccs



## Chapter XXIV.—Summary of the Work of the Research Institute and Hospital for Tropical Diseases

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### ARTICLES PUBLISHED IN THE JOURNAL OF THE EGYPTIAN MEDICAL ASSOCIATION

- (1) Report on the conference on Microbiology held at Rio de Janeiro (17–25th, September 1950): by Dr. A. Halawani.
- (2) Target cell anemia. Description of 3 cases, By Dr. Gamal Nor el Din and Dr. A. Awni.
- (3) The Causative organisms of Lobar Pneumonia in Egypt: by Dr. M.M. Dawoud and M. Elyan.
- (4) Recent advances in the Treatment of Bilharziasis Part I, by Dr. A. Halawani and Dr. M.M. Dawoud.
- (5) Recent advances in the Treatment of Bilharziasis, Part II Miracil D: by Dr. A. Halawani and M.M. Dawoud.
- (6) A Preliminary Report on Wia in the treatment of Amoebic Dysentery: by Dr. Gamal Nor el Din.
- (7) Treatment of Malaria cases with a single massive dose of the Anti-malarial Drugs. By Dr. A. Halawani and Dr. I. I. Baz.
- (8) Observations on the side effects of Miracil D: By Dr. Gamal Nor el Din and Dr. M. M. Dawoud.
- (9) Aureomycin in Intestinal Amoebiasis, A Preliminary Report: by Dr. A. Halawani, Dr. A. Abdallah & Dr. M. I. El Kordy.
- (10) Nursing Scheme at the Hospital for Tropical Medicine, London: by Atia Fahmy.
- (11) Health Security in Great Britain, Report and Observations: by Atia Fahmy.
- (12) Cardio-vascular complications in cases of Myxoedema: by Dr. Gamal Nor el Din.
- (13) Dixa-Aestivalis in Egypt: by Dr. I. I. Baz.

### CLINICAL SECTION

During this year, 7,550 patients frequented the out-patient department. All the necessary investigations and particular research work were performed at the different sections of the Institute. Treatment for parasites and their complications was carried out both in the out-patient department and inside the hospital. 793 patients were found suffering from organic diseases.

*Bilharziasis*.—(1,131 cases) 6 per cent freshly prepared Repodral solution given intramuscularly in a dose of 1 c.c. per 12 Kgms. of body weight daily for 10 days. The apparent cure rate was 70 per cent on the average.

(2) Stibophen solution in the same concentration and dose as Repodral was tried about the end of the year and no toxic effects were observed.

(3) Oral Miracil D was tried and the results were given in the published literature.

*Ancylostomiasis*.—(857 cases). Carbon tetrachloride was given in a dose of 1 c.c. per 12 Kgms. of body weight and the result was 43 per cent cures after the first dose.

Severe anaemia (Hb less than 50 per cent) was found in 33 per cent of the cases.

*Ascariasis*.—(910 cases):

- (1) Oil of chinopodium in a dose of 1 c.c. per 24 Kgms. of body weight was used. 44 per cent cures were recorded after the first dose.

- (2) Hexylresorcinol in a dose of 1 gm. per patient over 12 years of age was tried with 77 percent cures after the first dose and 83 per cent cures after the second dose. No toxic effects were observed.
- (3) Hetrazan tablets were tried and the subject is still under investigation, though preliminary results approximate those of Crystoids.

*Taeniasis*.—(62 cases). Atebrin was used in a dose of 0.9gm. for adults weighing 60 Kgms. or more.

*Heterophyes*.—(8 cases). Filix mas was used in a dose of 4.c.cs. for adults weighing 60 Kgms. or more. Cure rate was 100 per cent after the first dose.

*Hymenolepis nana*.—(65 cases).

- (1) Filix mas was used as in heterophyes.
- (2) Chloroquin is under trial.

*Amoebic Dysentery* :

- (1) Enterovioform and Stovarsol tablets were used in the out-patient department.
- (2) Also Emetine was used.
- (3) About the recent modes of treatment details are mentioned in the published literature.

#### PROTOZOOLOGICAL SECTION

- (1) Trial experiments in an attempt to find some new and easy method for staining intestinal protozoa.
- (2) Studying the effect of Aureomycin on Amœbae of intestine (Published report).
- (3) Average percentage of Ent. histolytica infection in Egypt was found to range from 30 to 85% according to our methods which are :—
  - (a) Direct smear method and staining with iodine.
  - (b) Using Hematoxyline and quircitrine.
  - (c) Cultural methods.
  - (d) Zinc sulphate flotation method.
- (4) Use of Hydatid fluid in the diagnosis of E. histolytica.

#### BIOCHEMICAL SECTION

- (1) Application of the polarograph in estimating Sb III in blood in cases of bilharzia.
- (2) Analysis of samples of D.D.T. sent from the stores of the Ministry of Public Health.
- (3) Analysis of samples of Stibophen sent from the health unit of the Ministry of Education and from the Ministry of Public Health.
- (4) Study of the effect of alkalinity on the oxidation of Sb III.

#### BACTERIOLOGICAL SECTION

- (1) Wassermann Reaction, 739 Samples.
- (2) Agglutination test for Typhoid and Malta group. 58 Samples.
- (3) Blood Cultures, 13 Samples.
- (4) Urine Cultures, 339 Samples.
- (5) Stools, 65 Samples.



- (6) Sputum for T.B., 194 samples.
- (7) Sputum for Bilharzia Ova, 3 samples.
- (8) Smears of prostatic discharge, 11 samples.
- (9) Casoni test, 3 samples.
- (10) Hair for ring-worm, one case.

#### EXPERIMENTAL ANIMALS SECTION

- (1) Infection of gerbiles with cercaria of *Schistosoma mansoni* and the use of the hatching method in diagnosis.
- (2) Maintenance of trypanosome species by passing them in mice.
- (3) Infecting mice and monkeys with micro-filaria .
- (4) Passing *Plasmodium bergi* in mice and the preparation of films and sections.
- (5) Biological trials on the infection of gerbiles with Bilharzia.
- (6) Biological tests of Repodral, Stibophen, Emetine and Miracil.
- (7) Trials on the production of cancer of bladder in dogs.
- (8) Experiments on miracidia of Bilharzia.
- (9) Experiments on coccidiosis and the use of new lines of treatment.

#### MALARIOLOGY AND ENTOMOLOGY SECTION

- (1) 7,561 thick drop films were examined for malaria. 1.3 per cent were found positive, of which 23.3 per cent were M.T.M. and the rest B.T.M.
- (2) 24,170 films were examined for microfilaria of which 2 per cent proved positive.
- (3) 3,383 specimens of mosquito larvae were examined.
- (4) 124 specimens of fleas collected from rats trapped by the quarantine authorities were examined.
- (5) Visits to the research stations at Fayed, Khanka, Rosetta and Pyramids for supervision of research work on malaria, snails and filaria survey.

#### KHANKA MALARIA CONTROL STATION

- (1) Clearing drains, streams, ponds and swamps of weeds.
- (2) Spraying mosquito breeding areas with 5 per cent D.D.T. in malariol to kill larvae.
- (3) Spraying rice cultivated areas with the above-mentioned emulsion.
- (4) Draining some ponds in the neighbouring drains through connecting channels.
- (5) Filling in of small ponds and swamps.
- (6) Survey of malaria incidence in villages through taking blood films, and also spraying houses with D.D.T. emulsion.
- (7) Starting examination of inhabitants for parasites in stools and urine preparatory to their treatment.
- (8) Trials on the prophylactic treatment of malaria by the use of drugs as Quina-crine, Nivaquin, Paludrine and Resochin.
- (9) Trials on the use of some antimalarial drugs.
- (10) Starting search of drains, ponds and swamps for bilharzia snails and treating them with Copper sulphate.
- (11) 24,905 blood films were examined for malaria, 12.6 per cent were found positive for B.T.M. and 1.4 per cent positive for M.T.M.

#### FAYED MALARIA CONTROL STATION

- (1) Clearing ponds, swamps and drains of weeds.
- (2) Spraying these places with 5 per cent D.D.T. in malariol.
- (3) Filling in of small ponds and water collections.
- (4) Spraying of house latrines with the above mentioned emulsion.
- (5) Treatment of cases of malaria, bilharzia and intestinal parasites.
- (6) 7,062 blood films were examined for malaria of which 0.62 per cent were found positive for B.T.M.
- (7) 32 mosquito breeding areas were found of which 24 harboured *A. pharoensis* and 8 harboured *A. sergenti*.
- (8) Treatment of areas harbouring bilharzia snails with Copper sulphate.
- (9) Arranging for the construction of public latrines for inhabitants.

#### ROSETTA FILARIA STATION

- (1) Examination of mosquitoes and larvae in the area. The prevalent species was the *C. pipiens*.
- (2) The most important breeding places were the cesspits of houses, slaughter-house swamps, Wakf swamps, water tanks, wells and drains. The necessary measures were taken.
- (3) 5 per cent D.D.T. in malariol was found to be the best emulsion for eradication of larvae.
- (4) Infection rate with microfilaria was 5.71 per cent. Percentage in children was less than the year before as a result of the measures taken.
- (5) Hetrazan was used and found effective in microfilaria positive cases.
- (6) This type of treatment was tried on cases of chyluria and is still under trial.
- (7) Hetrazan was found of no effect on swellings of limbs.



## Chapter XXV.—Memorial Ophthalmic Laboratory

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The work of the Memorial Ophthalmic Laboratory during 1950 falls, as in previous years, under 4 main categories: (1) Research, (2) Routine Pathological examinations, (3) Clinical investigations, (4) Post-graduate instruction.

(1) *Research*.—Field experiments on the bacteriology, epidemiology and prevention of the acute ophthalmias were continued in two groups of villages. Interest was particularly centred on the effects of fly-control in limiting the spread of these diseases and very promising results were obtained. This work is now being carried on in collaboration with the Rural Health Research Section and the Rockefeller Foundation.

Some further progress was achieved in research on the infective agent of trachoma and new technique developed for the cultivation of the virus in chick embryos, etc.

Clinical trials were carried out with some of the newer antibiotics, but so far no consistent results have been obtained in uncomplicated Egyptian trachoma.

(2) *Routine pathology*.—In the course of the past year, 207 pathological specimens received from Government hospitals were reported on. Nearly 6,000 bacteriological examinations were carried out.

(3) *Clinical Department*.—Many patients were referred to the Laboratory during the year for special examination, second opinion and treatment.

(4) *Post-graduate instruction*.—The Director and other members of the staff of the Laboratory again gave courses of lectures and demonstrations to post-graduate students taking the D.C.M.S. of Cairo.

During 1950, many volumes were added to the reference library of the Laboratory, which now contains nearly 2,500 volumes.

## APPENDICES

### APPENDIX I.—Medical Permits.

TABLE No. 168—NUMBER OF PRACTITIONERS OF THE MEDICAL AND ALLIED PROFESSIONS AT THE END OF THE YEAR 1950 AS COMPARED WITH THAT OF THE YEAR 1949.

Professions	At the end of 1949	At the end of 1950
Medical practitioners ... ..	4,612	4797
Veterinary Surgeons ... ..	596	637
Dental Surgeons ... ..	584	591
Dentists without Diplomas* ...	107	106
Pharmacists ... ..	1,391	1487
Midwives... ..	996	1046
Asistant Pharmacists*... ..	322	321

\* Permits are no longer issued to persons of these two categories.

TABLE No. 169—NUMBER OF PERSONS AUTHORISED TO PRACTISE THEIR PROFESSIONS IN EGYPT DURING THE LAST FIVE YEARS.

Professions	1946	1947	1948	1949	1950
Medical Practitioners ... ..	194	142	128	186	218
Veterinary Surgeons ... ..	28	24	1	53	42
Dental Surgeons ... ..	8	14	19	32	9
Pharmacists ... ..	62	120	77	81	98
Midwives ... ..	61	68	30	32	50
Kabela (Daya) ... ..	192	141	221	56	7
Barbers ... ..	2	7	6	2	1



TABLE No. 170.— ORIGIN OF MEDICAL DIPLOMAS WHOSE HOLDERS WERE AUTHORISED  
TO PRACTISE MEDICAL PROFESSIONS DURING 1950

Professions	Cairo	Abbassia	Alexandria	Great Britain	Greece	Switzerland	France	Lebanon	America	Italy	Poland	Austria	Germany	Turkey	TOTAL
Medicine	155	19	18	7	2	2	6	3	2	1	—	1	2	—	218
Veterinary Surgery	42	—	—	—	—	—	—	—	—	—	—	—	—	—	42
Dental Surgery	4	—	1	—	—	—	—	2	—	—	—	—	—	—	7
Pharmacy	81	—	—	1	2	—	4	8	—	—	1	—	—	1	98
Midwifery	50	—	—	—	—	—	—	—	—	—	—	—	—	—	50

TABLE No. 171.— NATIONALITIES OF PERSONS AUTHORISED  
TO PRACTISE MEDICAL PROFESSIONS DURING 1950

Professions	Egyptians	Greeks	Americans	Saudi Arabi ns	British	Palestinians	French	Portuguese	TOTAL
Medical Practitioners ...	205	2	2	2	2	3	2	—	218
Veterinary Surgeons ...	42	—	—	—	—	—	—	—	42
Dental Surgeons ... ..	5	—	—	—	—	2	—	—	7
Pharmacists ... ..	91	5	—	—	—	2	—	—	98
Midwives ... ..	50	—	—	—	—	—	—	—	50

TABLE No. 172.—ORIGIN OF MEDICAL DIPLOMAS OF EGYPTIAN PRACTITONERS WHO  
WERE AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1950.

Professions	Cairo	Abbassia	Alexandria	Great Britain	Switzerland	France	Lebanon	Germany	Turkey	Austria	TOTAL
Medicine .. ...	154	19	18	6	2	2	2	1	—	1	205
Veterinary Surgery	42	—	—	—	—	—	—	—	—	—	42
Dentistry ... ..	4	—	1	—	—	—	2	—	—	—	7
Pharmacy ... ..	78	—	—	1	—	4	7	—	1	—	91
Midwifery ... ..	50	—	—	—	—	—	—	—	—	—	50

TABLE No. 173.—RESULT OF THE STATE EXAMINATION HELD DURING 1950  
FOR MEDICAL PRACTITIONERS, PHARMACISTS AND DENTAL SURGEONS  
HOLDING FOREIGN DIPLOMAS FOR THE PURPOSE OF RECORDING  
THEIR NAMES IN THE MINISTRY'S REGISTER.

Examination	Number	EGYPTIANS		FOREIGNERS		TOTAL	
		Succeeded	Failed	Succeeded	Failed	Succeeded	Failed
Medicine. ... ..	24	—	—	2	22	2	22
Pharmacy ... ..	9	—	—	3	6	3	6
Dentistry ... ..	14	2	2	3	7	5	9



## Appendix II.—Report on the work of the Central Medical Commission and the other Governorate and Provincial Medical Commissions during the Year 1950

### *The Central Medical Commission :*

The number of medical certificates issued by the Central Medical Commission during 1950 was 35,794 *i.e.* 3,812 certificates more than 1949, in spite of the extension of the attributions of the Medical Commissions in Governorates and Provinces to cover the granting and approval of sick leaves up till 60 days and the invaliding out of service of temporary officials and hors cadre employees and daily paid staff without further reference to the Central Medical Commission for final sanction.

Of this number 20,444 candidates for government service or educational missions abroad were examined by the Central Medical Commission. These consisted of 13,422 candidates for permanent or temporary posts, 336 for educational missions and 6,686 hors cadre posts.

62.11 per cent of the first group and 47.18 per cent of the last group passed the medical examination. Of the 37.89 per cent failures in the first group, 27.57 per cent failed in vision, myopia accounting for most of them ; 4.5 per cent for defects of the urinary system, albumin or traces thereof being the main cause ; 1.26 per cent for heart diseases with incompetency of the heart as the main complaint and 4.5 per cent for other diseases, *e.g.* varicoceles, hydroceles not treated or removed by operation, deformation, debility or respiratory diseases. Of the 52.82 per cent failures in the last group, 41.84 per cent failed in vision-Myopia accounting for most of them ; 5.08 per cent failed in urine-albumin or traces thereof being the main cause; 0.86 per cent for heart diseases with incompetency of the heart as the main complaint and 5.04 per cent for other diseases, *e.g.* varicoceles, hydroceles not treated or removed by operation, deformity, debility, flat foot or respiratory diseases.

A total of 10,205 medical certificates dealt with leaves granted to government officials reporting sick. These consisted of 7,415 pensionable and temporary officials and 2,790 hors cadre employees.

Of those granted sick leaves by the C.M. Commission or by the Cairo Medical Officers of Health and approved by the C.M. Commission, 4,130 permanent and temporary officials and 1,204 hors cadre employees were found suffering from medical diseases, and 1,675 P. and T. officials and 634 H.C. employees suffered from surgical and ophthalmic diseases.

Herebelow are the diseases accounting for the sick leaves and the ratio of their prevalence :

TABLE No.174

Diseases	Pensionable and Temporary Officials		Hors Cadre Employees	
	Number	Percentage to the Total %	Number	Percentage to the Total %
Nose and Larynx ... ..	346	6.27	777	4.19
Bronchi and Lungs ... ..	423	6.29	112	6.09
Heart and Blood Circulatory System ... ..	567	9.77	48	2.62
Stomach and Intestines ... ..	137	2.26	36	1.96
Liver ... ..	465	8.01	78	4.24
Kidneys and Cystis ... ..	267	4.60	62	3.37
Neurasthenia ... ..	93	1.60	1	0.05
Mental Diseases ... ..	264	4.55	253	13.77
Nervous system ... ..	183	3.15	29	1.58
Anaemia and General Debility... ..	322	5.55	97	5.28
T.B. ... ..	476	8.19	276	15.02
Syphilis ... ..	—	—	3	0.16
Rheumatism ... ..	470	8.10	98	5.33
Fevers ... ..	66	1.14	31	1.69
Other Medical Diseases ... ..	33	0.57	3	0.16
Eye Diseases ... ..	147	2.53	35	1.91
Ear Diseases ... ..	44	0.76	9	0.49
Appendicitis ... ..	78	1.34	52	1.83
Hernia... ..	62	1.07	17	0.91
Fistulas ... ..	83	1.43	14	0.76
Piles... ..	99	1.71	30	1.63
Hydroceles ... ..	16	0.27	5	0.27
Urinary System and Stones ... ..	76	1.31	26	1.41
Various Other Surgical Operations ... ..	806	13.88	350	19.05
Fractures ... ..	195	3.36	78	4.24
Dental Diseases ... ..	69	1.10	18	0.98

48,017 officials and employees were granted from 1-10 days sick leaves by District Markaz or Out-post medical officers in all the Governorates and Provinces Of these, 37,217 or 77.5 per cent suffered from medical diseases, 7,590 or 15.8 per cent suffered from surgical diseases and 3,210 or 6.7 per cent suffered from ophthalmic diseases.

The total number of days sick leave granted to the P. and T. officials only amounted to 214,126.

1,477 P. and T. officials and 527 H.C. employees in Cairo only were granted from 1-10 days sick leave by the C.M. Commission or by Cairo Medical Officers of Health.



637 Permanent and Temporary officials and 173 Hors Cadre employees were examined by the C.M. Commission but were not granted any sick leave.

1,107 P. and T. officials and 1,186 H.C. employees were examined by the other Governorate and Provincial Medical Commissions but were not granted any sick leave.

4,328 P. and T. officials and 1,311 H.C. employees were granted from 11-30 days sick leave and over by the C.M. Commission and by Cairo Medical Officers of Health.

The C.M. Commission granted 29 P. and T. officials longer sick leaves terminating by their retirement on pension ; and pronounced 138 H.C. employees medically unfit for further service.

21 P. and T. officials and 30 H.C. employees were pronounced fit for further service.

*Medical Examination of Private and Passenger Pilots :*

Of 204 candidates for private pilot licence " A " examined by the C.M. Commission, 134 were found fit (112 in the first exam., 19 in the second and 3 in the third). 70 of 75 failures were examined once, 11 twice and 4 three times.

Of 25 candidates for passenger pilot licence " B " examined by the C.M. Commission, 23 were found fit (21 in the first exam. and 2 in the second). One of the failures was examined once and the other twice.

Out of 191 private pilots examined for renewal of licences, 178 were found fit (146 in the first exam., 32 in the second). 13 were found unfit (11 in the first exam. and 2 in the second).

Out of 151 passenger pilots examined for renewal of licences, 145 were found fit (142 in the first exam., 2 in the second and 1 in the third). 6 were found unfit (5 in the first exam. and 1 in the second).

*Governorates and Provincial Medical Commissions :*

A total of 54,893 medical certificates were issued by the Governorate and Provincial Medical Commissions i.e. an increase of 5,136 medical certificates over those of last year.

TABLE No. 175.—ANNUAL REPORT ON THE WORK OF THE CENTRAL, PROVINCIAL AND GOVERNORATE MEDICAL COMMISSIONS DURING THE YEAR 1950.

: : : TOTAL	Provincial and Governorate Medical Commissions										Central Medical Commission																																																																																																																																																																																													
	2-167					3-533					921					16-827					17-385					238					59					34					5					14-887					10-000					1-544					1-359					50					1-586					26					1-105					82					2-006					1-329					30					2-617					2-919					93-647					4-926					12-317					880					3-180					150					345					187					218					2					11					1					17					523					1-297					6-719					17-385				
	Fit	Rejected in 1st Session	Rejected in 2nd Session	Tempor- ary	Pensionable and Hors Cadre	For Admission into Service	Fit	Unfit	Refused	Granted	P. & T.	H. C.	P. & T.	H. C.	Unfit	Fit	Invaliding	For Determination of Age	Other Examinations	Total	Defective Vision	Urinary System	Respiratory System	Circulatory System	Nervous System	Digestive System	Other Systems	Total																																																																																																																																																																												
8-307	960	3,309	846	3-155	3-531	238	59	34	5	6-978	2,617	437	173	29	138	21	30	562	1,329	11	2-117	866	35-704	3-792	2-198	670	314	140	47	171	59	2	8	—	—	17	88	992	1-506	5-211	3-531																																																																																																																																																															



TABLE No. 176. — CLASSIFICATION OF DISEASES CONTRACTED BY OFFICIALS AND EMPLOYEES FOR WHICH SICK LEAVES WERE GRANTED BY THE CENTRAL, PROVINCIAL AND GOVERNORATE MEDICAL COMMISSIONS AND BY THE DISTRICT M.O.s H. IN CAIRO AND APPROVED BY THE C.M.C. DURING THE YEAR 1950.

DISEASES

	Medical Diseases															Surgical and Ophthalmic Diseases																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL		H. C.	P. & T.	H. C.	P. & T.	1	2	3	4	5	6	7	8	9	10	11	TOTAL		H. C.	P. & T.					
Central Medical Commission	Nose and Larynx	Bronchi and Lungs	Heart and Cir. System for blood	Stomach and Intestines	Liver	Kidneys and Cysts	Neurasthenia	Mental Diseases	Nervous System (Cereb. and Cord)	Anaemia and General Debility	T. B.	Syphilis	Rheumatism	Fevers	Other Medical Diseases		H. C.	P. & T.	H. C.	P. & T.	Eye Diseases	Ear Diseases	Appendicitis	Hernia	Fistulas	Piles	Hydrocele	Urinary System and Stones	Other Surgical Operations	Fractures	Dental Diseases		H. C.	P. & T.							
	364	423	567	137	465	267	93	264	183	322	476	276	3	470	98	33	56	31	33	3	147	44	78	62	17	83	14	99	30	16	5	76	26	806	370	195	78	69	18	1,675	634
Provincial and Governorate Medical Commissions	293	1,005	511	708	451	346	234	7	47	770	226	355	8	25	1,044	731	278	379	386	497	175	95	80	41	97	66	94	166	160	27	50	128	110	342	1,027	150	417	75	61	1,585	2,348
	657	1,428	1,078	845	916	613	327	271	230	1,168	702	631	8	28	1,514	829	284	360	419	500	3,22	219	139	147	103	114	149	108	265	190	43	55	204	136	1,348	1,377	385	495	144	79	3,260
TOTAL																	4,150	1,204	147	35	44	9	78	62	17	83	14	99	30	16	5	76	26	806	370	195	78	69	18	1,675	634

N.B.—P. = Pensionables      T. = Temporary.      H.C. = Hors Cadre.

### Appendix III.—Report on the Work of the Central Stores

The Central Stores continued to supply new and old units with the most modern apparatus, equipment and drugs. During the year under review, the following new units were furnished and equipped:

- 2 Ancylostoma branches at Desouk and Nag Hammadi.
- 1 Mobile unit for the Frontier Districts Medical Section in the Eastern Desert.
- 5 Hospitals at Teh el Baroud, Maghagha, Hehya, Mallawi and Shukri Pasha, Manchiet el Bakri.
- 4 Chest Diseases Dispensaries at Zagazig, Shebin el Kom, Damanhour and Mallawi. Two stationary mass radiography units were installed at Muftadayan and Alexandria Chest dispensaries.
- 1 Bacteriological Laboratory at Damanhour.
- 2 Leprosy clinics at Beni Suef and Beba.
- 2 Ophthalmic branches at Behout and Teh el Baroud.
- 4 Bilharzia Control inspections at Shebin el Kom, Tanta, Fouadia West at Kafr el Sheikh and Fouadia East at Belqas.
- 5 Health Offices at Abu Hommos, Samsatal Wakf, Awlad Gabara and Mehres.
- 3 Fever hospitals at Fareskour, Tahta and Kafr el Dawar.
- 6 Child Welfare units at Tema, Dekernis, Etsa, Abshaway, Kalaa and Ismailia.
- 17 Health centres at Teta (Menoufia), Faroukia (Qaliubia), Bisentiwai (Behera), Menshat el Kurdi (Gharbia), Kom el Dirby, Negiar and Kafr Ghanam (Dakahlia), Tel el Kebir, Singha, Basateen Barakat, Shubak Basta and Akhaiwa (Sharkia), Tamia and Matar Tares (Fayoum), Atawla (Assiut), Sheikh Marzouk (Gerga), and Kift (Qena).
- 43 Public baths at Mehallet Marhoum (Gharbia), Saadiyeen and Mit Yazid (Sharkia), Mashtoul el Kadi and Hilmia (Fouadia), El Mai, Shubra Bas, Shatanouf, Shanshour Agaiza, Kafr Rabie, Shuhada, Menouf I, Menouf II and Tanbadi (Menoufia), Balaks, Tanan, Musturod and Manadil (Qabliubia), Birkash, Menshat el Bakari, Bani Magdal, Ikhsas el Kiblia, Badrashain, Basateen, Abu Suer and Sakkara (Giza), Bosh, Miana el Galabia, Maimoun and Ashmant (Beni Suef), Defno, Tatoun, El Gharak, El Robe and Kasr el Gibali (Fayoum), Bergaya (Minia), Gerahia (Qena), Nag el Hasa (Aswan), and Balsafoura and Edfo (Gerga).



TABLE No 177.— CONTRACTS CONCLUDED DURING THE YEAR.

Type of Work	Number
Questions submitted to Contracts Board ... ..	1,032
Meetings held by Contracts Board ... ..	140
General Adjudications ... ..	291
Tenders submitted in general adjudications ... ..	1,347
Local adjudications ... ..	91
Tenders submitted in local adjudications ... ..	191
Contracts ... ..	595
Agreements ... ..	4
Local orders ... ..	85
Foreign orders ... ..	16
Forms 50 c. g.... ..	3,287
Purchases by Negotiation ... ..	50

TABLE No. 178.—SUMMARY OF ACTIVITIES DURING THE YEAR.

Type of Work.	Number
Receipt Vouchers ... ..	11,316
Issue Vouchers, free of charge ... ..	57,983
Issue Vouchers, against payment ... ..	3,049
Claims... ..	1,388
Outward correspondence ... ..	187,099
Inward correspondence and forms ... ..	173,940
Postal parcels dispatched ... ..	13,770
„ „ received ... ..	2,331
Railway consignments received ... ..	1,697
„ parcels dispatched ... ..	37,554
Repairs carried out by Workshops ... ..	84,396
New works „ „ „ „ ... ..	85,258

# Appendix IV.—Budget Credits and Details of Posts

## Central Administration

TABLE No. 179.—BUDGET CREDITS

TITLES	Budget Grants		Actual Expenditures	
	1949	1950	1949	1950
	L.E.	L.E.	L.E.	L.E.
<b>TITLE I</b>				
Salaries, Wages and Allowances ... ..	1,046 503	953,541*	929,718	877,619
<b>TITLE II</b>				
General Expenditures ... ..	1,203,400	1,720,050†	1,219,092	1,693,745
<b>TITLE III</b>				
New Works ... ..	846,000	798,250	513,290	635,577
<b>TOTAL ... ..</b>	<b>3,095,903</b>	<b>3,471,841</b>	<b>2,662,100</b>	<b>3,206,941</b>

\* This sum includes L.E. 2,500 representing salaries, wages and allowances of Museum of Hygiene inserted under item 19 ( Chapter 2. )

† This sum includes an additional credit of L.E. 575,000 granted under Law No. 30 of 1951.

## DETAILS OF POSTS

Posts	1949	1950
<i>Permanent Posts :</i>		
Senior Technical and Administrative Posts	894	868
Intermediate Technical Posts ... ..	760	725
Clerical Posts ... ..	734	705
<i>Temporary Posts :</i>		
Technical Posts ... ..	—	—
Clerical Posts ... ..	232	198
Hors Cadre Personnel... ..	5,369	5,146
<b>TOTAL ... ..</b>	<b>7,989</b>	<b>7,642</b>



# Medical Treatment Department

TABLE No. 180.—BUDGET CREDITS

Title	Budget Grants		Actual Expenditures	
	1949	1950	1949	1950
TITLE I				
Salaries, Wages and Allowances. ... ..	431,645	475,800	358,572	399,362
TITLE II				
General Expenditures ... ..	786,000	660,400	622,132	659,843
TITLE III				
New Works ... ..	319,300	504,500	39,686	139,807
TOTAL ... ..	1,536,945	1,640,700	1,020,390	1,199,012

## DETAILS OF POSTS

Posts	1949	1950
<i>Permanent Posts :</i>		
Senior Technical and Administrative Posts	638	667
Intermediate Technical Posts ... ..	273	291
Clerical Posts ... ..	161	174
<i>Temporary Posts :</i>		
Technical ... ..	43	143
Clerical ... ..	45	48
Hors Cadre Personnel ... ..	3,668	3,766
TOTAL ... ..	4,828	5,089

## Preventive Medicine Department.

TABLE No. 181.—Budget Credits

Titles	Budget Grants.		Actual Expenditures	
	1949	1950	1949	1950
<b>TITLE I</b>				
Salaries Wages and Allowances ...	606,590*	588,660	579,799	587,599
<b>TITLE II</b>				
General Expenditures ... ..	400,000	419,000	298,484	404,892
<b>TITLE III</b>				
New Works ... ..	81,300	117,700	12,759	81,110
<b>Total ... ..</b>	<b>1,087,890</b>	<b>1,125,360</b>	<b>891,042</b>	<b>1,073,601</b>

\*An additional credit of L.E. 83,000 was granted by law No. 157 of 1949

## Details of Posts

Posts	1949	1950
<i>Permanent Posts :</i>		
Senior Technical and Administra- tive Posts	322	356
Intermediate Technical Posts	435	516
Clerical Posts	323	420
<i>Temporary Posts :</i>		
Technical Posts	—	—
Clerical Posts	95	103
Hors Cadre Personnel	2,518	2,914
<b>TOTAL ... ..</b>	<b>3,693</b>	<b>4,309</b>



Appendix V.—International Health

WORLD HEALTH ORGANIZATION

World Health Assembly :

The World Health Assembly held its Third Session in Geneva during the period 8-27 May, 1950, where Egypt was represented by a delegation composed of :

- Late Dr. M. K. Abdel Khalik, Bey, the ex. U.S.S. of the Ministry ... *President*
- Dr. Abdel Fattah el Tobgi, Bey, Professor Kasr el Aini Faculty of Me-  
dicine ... ..

Dr. M. M. Sidky, Director, Food Control Section ... ..
- }
- Members

Executive Board :

Egypt's membership in the Executive Board ended on May 1950 whence the Board became composed of representatives of the following member states :

Republic of the Philippines, Sweden, Turkey, Venezuela, United Kingdom, United States of America, Chile, Italy, Salvador, France, Pakistan, Thailand, Brazil, India, Netherlands, Poland, Union of South Africa and Yugoslavia.

Regional Committee :

The Regional Committee for the Eastern Mediterranean held its Third Session in Istamboul during the period 4-7 September 1950, followed by a Regional Conference on Health Statistics. An Exhibit of Public Health Education Material from Egypt was also held during that Session.

Egypt was represented in these meetings by a delegation composed of seven members

Expert Committees :

The WHO issued several Technical Report Series of its Experts Committees which were distributed to the Departments and Sections concerned for necessary action.

The following Experts Committees were attended by Experts from Egypt :

TABLE NO. 182

Name of Experts Committee	Place	Session
Committee on Unificatian of pharmacopœia ... ..	New-York	20-29/4/150
Committee on Tubdreulosis ... ..	Geneva	11-16/9/50
Committee on Epidemiology and Quarantine ... ..	„	9-18/10/50

*Nomination, of Egyptian Experts for surveys and studies abroad.*

Dr. M. A. K. El Dalgamouny, Director, Leprosy Section of the Ministry was seconded to the WHO for training the Ethiopian Health Authorities on the methods of treating leprosy by Sulfetrone.

*Egypt's Contribution to the WHO Budget :*

Egypt's contribution for 1950 amounted to \$ 55,773 and was paid on May 3, 1950.

*World Health Day :*

The Ministry celebrated the World Health Day on April 7, 1950, being the anniversary of the ratification of the WHO Constitution by 26 Members of the United Nations on April 7, 1948.

*Principal Activities of International Organizations in Egypt during 1950 :*

(1) The Mass B.C.G. Vaccination Campaign continued in Egypt the whole year with the assistance of the United Nations International Children's Emergency Fund and the Danish Red Cross.

(2) Arrangements have been taken for the establishment at Tanta in 1951 of a Venereal Diseases Control Demonstration Centre with the cooperation of WHO.

(3) The Ministry agreed to apply in Egypt the Sixth Revision of the International List of Diseases and Causes of Death (WHO Regulations No. 1) as from January 1, 1951.

(4) Some experts came to Egypt and discussed with the Ministry some health problems.

(5) A Nutrition Training Centre for the Middle East was established in Cairo on October 1, 1950 with the cooperation of WHO & FAO. The course lasted for 3 months and was attended by candidates from the countries of the Region.

(6) WHO supplied the Ministry with many publications and teaching equipment which were distributed to its Departments.



# CONFERENCES

The following are the conferences held in 1950 and were attended by representatives of the Ministry :

TABLE No. 183

Name of Conference	Place	Date
Permanent Committee of the " Office International d'Hygiene Publique.... ..	Geneva	5- 6/5/50
XVIth International Congress of Ophthalmology ... ..	London	17-21/7/50
Fifth International Cancer Congress ... ..	Paris	17-22/7/50
VIth International Pediatric Congress... ..	Zurich	21-31/7/50
VIth International Congress of Radiology. ... ..	a- London	23-29/7/50
Congress of the International Union against Venereal Diseases	Zurich	29/7-1/8/50
Fifth International Congress of Microbiology ... ..	Rio de Janeiro	17-24/8/50
Ist International Congress of Heart Diseases ... ..	Paris	3- 9/9/50
XIth Conference of the International Union against Tuberculosis	Copenhagen	3- 6/9/50
Ist International Congress of Chest Diseases Specialists ... ..	Rome	15-19/9/50
International Congress of Psychiatry.... ..	Paris	18-27/9/50
Symposium on Tropical Medecine... ..	Beirout	18-19/9/50
2nd United Nations Social Welfare Seminar for the Arab States ... ..	Cairo	22/11-14/12/50

## FELLOWSHIPS

The following fellowships were awarded in 1950 at the expense of WHO or UNICEF:

TABLE No. 184

Subject Study	Country of study	Time
Sanitary Engineering ...	U.S.A.... ... ..	July 1950.
„ „ ... ..	„ ... ..	July 1950.
V.D. Control ... ..	U.S.A.... ... ..	9 months from, 8/10/1950.
Social and Economical Aspects of T.B. ... ..	Denmark, England and U.S.A. ... ..	5 months from 15/1/1950.
Pediatrics ... ..	France... ... ..	4 months from 1/3/1950.
„ ... ..	„ ... ..	4 months from 1/3/1950.
„ ... ..	Stockholm ... ..	2 months from 1/9/1950.

## CONVENTIONS

(1) On August 25, 1950, an Agreement was concluded between the Government of Egypt and the World Health Organization for the provision of Services by WHO in Egypt. It was promulgated by Law No. 174 of 1950 and Decree of January 23, 1951.

(2) On September 12, 1950, an Agreement was concluded between the Government of Egypt and the United Nations Relief and Works Agency for Palestine Refugees in the Near East. It was promulgated by Law No. 175 of 1950.



# Appendix VI.—Summary of Report on the State of Public Health in Alexandria.

TABLE No. 185.—AGE AND SEX DISTRIBUTION OF BIRTHS AND DEATHS ACCORDING TO QISMS.

Qisms	Births				Deaths													
	Live Births		Still Births		Under one year		1—5 years		5—15 years		15—45 years		45—65 years		Over 65 years		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Gumrok ... ..	3,062	2,816	33	23	578	545	237	255	22	26	62	45	111	57	233	209	1,243	1,137
Manshiet... ..	750	708	3	3	136	140	54	61	5	4	20	15	39	18	47	60	301	298
Labban ... ..	1,650	1,626	3	5	311	284	191	175	18	13	52	28	88	44	150	130	811	680
Attarine ... ..	1,720	1,736	127	112	236	227	131	115	52	40	342	181	323	142	168	120	1,252	825
Mina El Basal I ...	2,868	2,611	175	130	375	377	151	169	19	13	45	51	37	27	61	102	688	739
„ II ... ..	1,338	1,322	4	2	293	284	144	163	16	14	28	21	34	22	72	81	591	585
Karmouz I ... ..	1,916	1,903	36	19	376	384	209	220	16	19	53	44	59	55	114	113	827	833
„ II ... ..	2,315	2,433	7	5	391	431	212	216	16	22	37	40	74	54	82	80	812	843
„ III... ..	2,065	2,018	24	15	399	420	243	249	15	21	36	22	49	35	86	80	825	827
Moharram Bey ...	2,614	2,540	52	41	400	373	332	301	67	49	141	103	125	94	130	136	1,195	1,056
Hadra ... ..	3,247	3,014	66	76	490	509	230	253	33	18	120	102	237	189	253	253	1,363	1,324
Raml I ... ..	2,413	2,348	6	3	445	418	223	267	15	7	81	37	85	60	99	112	948	901
„ II ... ..	1,145	1,069	17	8	231	227	110	117	11	8	34	30	39	17	61	64	486	463
TOTAL ... ..	27,103	26,144	553	442	4,663	4,617	2,467	2,561	305	254	1,051	719	1,300	814	1,556	1,546	11,342	10,511





## Appendix VII.—Report on the Work of Cairo City Health Department

### Population :

The estimated mid-year population of Cairo City in 1950 was 2,266,900. Table No. 187 gives the distribution of this population in the different Qisms.

TABLE No. 187

Qism	Population
Qubba... ..	91,000
Heliopolis ... ..	90,600
Zeitoun ... ..	87,500
Abbassia ... ..	133,000
Ezbekia ... ..	107,900
Rod el Farag ... ..	183,700
Shubra ... ..	121,400
Sharabia ... ..	77,000
Gamalia ... ..	118,000
Bab el Shaaria ... ..	131,600
Abdin ... ..	93,300
Mouski ... ..	77,600
Darb el Ahmar ... ..	114,300
Khalifa ... ..	124,900
Sayeda I ... ..	108,500
Sayeda II ... ..	99,500
Boulaq I ... ..	68,000
Boulaq II ... ..	75,500
Adawia ... ..	68,700
Old Cairo ... ..	110,400
Helwan ... ..	49,500
Maadi ... ..	46,000
Hadayeq Shubra ... ..	89,000
<b>TOTAL ... ..</b>	<b>2,266,900</b>

### Births :

The total number of births, excluding still births, recorded during the year was 113,448 or 9,402 more births than the previous year and a birth rate of 50.06 per 1,000 of population. Table No. 188 gives the distribution of births according to *Qisms* and their rates per 1,000 of population.

Still births registered during the year totalled 2,000 or 17.62 per 1,000 births as against 1,876 and 18.02 in 1949 ; 1,831 and 18.4 in 1948 and 2,031 and 18.39 in 1947.

### Deaths :

A total of 52,184 deaths were recorded during the year. Of this number, 1,512 were non-residents of Cairo City and 2,000 were still births. This leaves 48,672 deaths for Cairo proper, or 1,094 deaths less than last year, and a death rate of 21.47 per 1,000 of population as against 22.7, 25.1, 27.5 and 33.7 in 1949, 1948, 1947 and 1946 respectively.

Table No. 188 gives the distribution of deaths and death rates on the various Qisms.

### Infantile Mortality :

The total number of infantile deaths under one year of age was 20,269 or 178.6 per 1,000 live births as against 183 in 1949, 191 in 1948, 161 in 1947 and 200 in 1946.

Infantile deaths constituted 41.6 per cent of total Cairo deaths as against 38.2 in 1949, 38.1 in 1948, 39.3 in 1947 and 36.6 in 1946.

### *Causes of Infantile Deaths :*

Diarrhoea and enteritis continue to be the main causes of infantile deaths, having accounted for 11,539 deaths out of a total of 20,269 infantile deaths or a ratio of 56.9 per cent. Next comes Debility accounting for 5,991 or 29.6 per cent, and respiratory system diseases accounting for 1,613 or 7.9 per cent (excluding deaths from pneumonia). Other diseases accounted for 593 deaths or 2.9 per cent, while infectious diseases accounted for 533 deaths or 2.6 per cent.

### *Death Inquiries :*

Qism medical officers of health examined 6,739 uncertified deaths and Qism midwives examined 16,665.

### *Infectious Diseases :*

The number of cases of infectious diseases reported in Cairo City was 18,455 or 8 per thousand of population as against 18,406 in 1949, 14,793 in 1948; 14,413 in 1947 and 29,196 in 1946. Deaths from infectious diseases numbered 4,157 or 7.9 per cent of total Cairo deaths, as against 9.9 per cent in 1949; 9.6 in 1948 and 1947 and 11.5 per cent in 1946.

Tables Nos. 190 and 191 give the number of cases and deaths of infectious diseases in Cairo City and the distribution of the more prevalent diseases in Cairo Qisms together with the case and death rates.

### *Cholera :*

No cases or deaths were notified during this year nor the previous year, which shows that the control measures taken were effective in exterminating the disease.

### *Relapsing Fever :*

No cases or deaths were reported during this year, nor the two previous years. Thus the epidemic which broke out in 1945 disappeared in 1947, thanks to the control measures adopted including the regular D.D.T. dusting of the poorer quarters. 2,452,904 persons were dusted with D.D.T. during the year.

### *Small Pox :*

One case with no deaths was notified this year as against 2 cases and no deaths in the previous year.

### *Anti Small Pox Vaccination :*

The 4 year anti small pox general vaccination was started in 1946 by house to house teams. Persons vaccinated numbered 286,715 in 1946, 645,764 in 1947, 552,074 in 1948 and 321,501 in 1949. This completes the vaccination of the whole population of Cairo and amounts to 1,806,054.

During this year 188,020 persons were vaccinated at Shubra Gardens, Qubba, Heliopolis, Darb el Ahmar, Sayeda I and II, and Mouski Qisms. Another 151,988 persons attending hospitals were also vaccinated bringing the total vaccinated during the year to 340,088 persons. New born infants vaccinated at the public health offices numbered 108,184.

### *Typhus :*

32 cases with two deaths were reported or a ratio of 0.014 and 0.0008, respectively per thousand of population and a case-mortality rate of 6.25 per cent, as against 13 cases and no deaths and a ratio of 0.006 in 1949, 30 cases and no deaths and a ratio of 0.014 in 1948 and 49 cases with 10 deaths and a ratio of 0.031 and 0.016 respectively per thousand in 1947.

### *Typhoid :*

3,711 cases with 359 deaths were reported or a ratio of 1.6 and 0.158 per thousand of population and a case mortality rate of 9.16 per cent, as against 4,066 cases with 360 deaths and a ratio of 1.9 and 0.16 respectively in 1949 and 2,581 cases with 293 deaths and a ratio of 1.23 and 0.14 in 1948.



Persons inoculated against typhoid numbered 294,295 receiving the first injection and 149,117 receiving the second injection.

Children between 1 and 5 years immunised against typhoid numbered 179,290 receiving the first injection and 145,432 receiving the second injection.

#### *Diphtheria :*

530 cases with 117 deaths were notified this year or a ratio of 0.233 and 0.05 respectively per 1,000 of population and a case-mortality-rate of 22.07 per cent; as against 818 cases with 155 deaths in 1949 and 944 cases with 189 deaths in 1948.

Children immunized against diphtheria numbered 85,070 receiving one injection, 78,616 receiving two injections and 76,751 receiving three injections.

#### *Measles :*

585 cases with 230 deaths were reported this year or a ratio of 0.258 and 0.1 respectively per 1,000 of population and a case mortality-rate of 39.3 per cent as against 1,711 cases with 682 deaths in 1949 and 1,979 cases with 1,209 deaths in 1948.

#### *Cerebro Spinal Fever :*

1,274 cases with 167 deaths were reported or a ratio of 0.56 and 0.07 respectively per 1,000 of population and a case-mortality-rate of 13.1 per cent as against 133 cases and 41 deaths in 1949; 39 cases with 9 deaths in 1948 and 72 cases with 21 deaths in 1947.

#### *Scarlet Fever :*

10 cases with no deaths were reported as against 7 cases in 1949, 4 cases in 1948 and two cases in 1947.

#### *Influenza :*

2,777 cases with 9 deaths were reported or a ratio of 1.22 and 0.003 respectively per 1,000 of population and a case-mortality rate of 0.032 per cent as against 2,148 cases with 12 deaths in 1949 ; 1,345 cases with one death in 1948 and 1,421 cases with two deaths in 1947.

#### *Tuberculosis :*

3,583 cases with 1,683 deaths were reported or a ratio of 1.58 and 0.74 respectively per 1,000 of population and a case-mortality-rate of 46.9 per cent as against 3,581 cases with 1,607 deaths in 1949 ; 3,508 cases with 1,568 deaths in 1948 and 2,232 cases with 1,483 deaths in 1947.

#### *Deaths Attributed to Confinement :*

95 maternal deaths were attributed to confinement this year or a ratio of 0.837 per thousand births as against 64 in 1949 and 88 in 1948.

Of these deaths, 13 were due to puerperal fever or a ratio of 0.11 per 1,000 births as against a ratio of 0.11 in 1949 ; 0.39 in 1948 and 1.47 in 1947.

82 mothers died within a fortnight of confinement (excluding puerperal fever deaths) as against 93 in 1949, 63 in 1948 and 106 in 1947. The causes of these deaths were as follows : 1 Thrombosis, 1 Caesarian operation, 1 peritonitis, 1 intestinal paralysis, 2 uremia, 3 placenta praeva, 4 abortion, 4 heart failure, 5 toxæmia, 8 nervous shock after difficult labour, 9 rupture of uterus, 13 eclampsia, 30 hæmorrhagy and 13 puerperal fever.

#### *Disinfection :*

Besides the dusting with D.D.T. of persons, beddings and effects in the poorer quarters as referred to in connection with relapsing fever, 2,452,904 persons, 110,035 rooms and 427,929 articles were disinfected by Cairo disinfecting stations.

**TABLE No. 188.—VITAL STATISTICS OF CAIRO CITY FOR 1950 DISTRIBUTED ACCORDING TO QISMS**

Cairo Districts (Qisms)	Population	No. of Deaths	Death Rate per 1000 of pop.	No. of Births	Birth Rate per 1000 of pop.	No. of deaths Below One year	infantile death Rate per 1000 births
Qubba... ..	91,000	4,892	53.758	1,998	21.945	905	181.9
Heliopolis ... ..	90,600	2,399	26.479	1,200	13.245	362	150.8
Zeitoun ... ..	87,500	5,079	58.045	2,193	25.062	893	175.8
Abbassia ... ..	133,000	6,992	52.571	2,545	19.135	864	120.9
Ezbekia ... ..	107,900	4,207	38.989	1,850	17.145	672	159.7
Rod el Farag ...	183,700	8,269	45.013	3,509	19.101	1,570	189.8
Hadayeq Shubra	89,000	5,306	59.617	2,146	24.112	975	183.7
Shubra ... ..	121,400	6,791	55.939	2,428	20.0	1,022	150.4
Sharabia ... ..	77,000	5,299	68.818	2,114	28.103	1,059	199.8
Gamalia ... ..	118,000	6,355	53.857	2,798	23.711	1,171	184.2
Bab el Shaaria ...	131,600	5,434	41.291	2,254	17.127	884	162.6
Abdin ... ..	93,300	3,010	32.261	1,583	16.966	514	170.7
Mouski ... ..	77,600	3,093	39.858	1,277	16.452	531	171.6
Darb el Ahmar .	114,300	5,533	48.407	2,556	22.362	1,073	193.9
Khalifa ... ..	124,900	6,554	52.473	3,265	26.140	1,411	215.2
Sayeda I ... ..	108,500	6,598	60.811	2,683	24.728	1,088	164.8
„ II ... ..	99,500	3,951	39.708	1,876	18.854	891	186.4
Boulaq I ... ..	68,000	2,836	41.558	1,687	24.808	660	232.7
„ II ... ..	75,500	3,652	48.370	1,578	20.900	681	186.4
Adawia ... ..	68,700	6,688	97.350	1,820	26.491	860	113.6
Old Cairo ... ..	110,400	5,974	54.110	2,780	25.181	1,214	203.2
Helwan ... ..	49,500	2,290	46.262	1,033	20.868	442	193.0
Maadi ... ..	46,000	2,286	49.692	2,149	31.500	545	238.4
<b>TOTAL ... ..</b>	<b>2,266,900</b>	<b>113,488</b>	<b>50.06</b>	<b>48,672</b>	<b>21.47</b>	<b>29,269</b>	<b>178.6</b>



TABLE No. 189.—DISTRIBUTION OF UNCERTIFIED DEATHS 1950 ON CAIRO DISTRICTS.

Districts	Total No. of Deaths	Deaths Examined by			
		Medical Officers	Midwives	Private Practitioners	Hospital Medical Officers
Qubba ... ..	1,823	304	800	716	3
Heliopolis ... ..	1,245	118	248	581	298
Zeitoun ... ..	2,144	276	1,164	698	6
Abbassia ... ..	3,901	78	228	1,716	1,879
Ezbekia ... ..	1,719	59	726	844	90
Rod el Farag ... ..	3,329	166	743	2,418	2
Hadayeq Shubra ... ..	2,181	47	655	1,432	47
Shubra ... ..	2,293	52	454	1,500	287
Sbarabia ... ..	2,158	200	1,118	616	169
Gamalia ... ..	2,531	195	300	2,036	—
Bab el Shaaria ... ..	1,990	98	362	1,510	20
Abdin ... ..	1,268	357	569	318	94
Meuski ... ..	1,157	363	295	499	—
Darb el Abmar ... ..	2,264	880	974	409	—
Khalifa ... ..	3,023	1,130	1,544	349	—
Sayeda I ... ..	5,857	179	647	323	4,708
„ II ... ..	2,408	210	494	325	879
Boulaq I ... ..	1,475	252	847	353	23
„ II ... ..	1,528	282	852	393	1
Adawia ... ..	2,753	296	1,047	128	1,282
Old Cairo ... ..	2,712	705	1,405	602	—
Helwan ... ..	1,054	144	571	236	103
Maadi ... ..	1,371	293	622	257	199
<b>TOTAL ... ..</b>	<b>52,184</b>	<b>6,739</b>	<b>16,665</b>	<b>18,759</b>	<b>9,822</b>
<b>Rate ... ..</b>	<b>12·91</b>	<b>31·93</b>	<b>30·94</b>	<b>18·820</b>	<b>·38</b>

**TABLE NO. 190— INFECTIOUS DISEASES CASES, DEATHS AND RATES PER 1,000 OF POPULATION**

Diseases	Cases	Deaths	Case Mortality Rate percent	Case-rates per 1000 of population	Death rates per 1,000 of population
Typhoid ... ..	3,711	359	.92	9.72	.15
Typhus ... ..	32	2	6.25	.01	.0008
Diphtheria ... ..	530	117	22.07	.23	.05
Chicken pox ... ..	731	11	1.54	.434	.004
Small pox ... ..	1	—	—	.004	—
Measles ... ..	585	230	39.82	.25	.102
Meningitis ... ..	1,274	167	13.11	.56	.07
Scarlet fever ... ..	10	—	10.—	.004	.0004
Whooping cough ... ..	134	13	9.70	.05	.005
Mumps ... ..	534	—	—	.23	—
Rabies ... ..	1,157	7	— .60	.51	.003
Tetanus ... ..	58	30	51.72	.02	.01
Peurperal fever ... ..	133	22	16.54	.05	.009
Relapsing fever ... ..	57	—	—	.02	—
Dysentery ... ..	179	78	43.57	.07	.03
Tuberculosis ... ..	3,583	1,683	46.97	.58	.74
Influenza ... ..	2,777	9	— .32	.22	.003
Erysipelas... ..	301	13	— .43	.13	.004
Malaria ... ..	507	1	— .19	.22	.0004
Broncho pneumonia ... ..	1,715	1,152	67.17	.75	.508
Lobar       ,,       ... ..	446	263	58.82	.19	.11
<b>Total ... ..</b>	<b>18,455</b>	<b>4,157</b>	<b>22.52</b>	<b>8.09</b>	<b>1.83</b>



TABLE No. 191.—DISTRICT DISTRIBUTION OF THE PRINCIPAL INFECTIOUS DISEASES, 1950

Qisms	Population	Small-pox		Cerebro Spinal fever		Typhus fever		Typhoid		Scarlet fever		Diphtheria		Measles		TOTAL	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Qubba ..	91,000	—	—	62	5	3	—	211	15	—	—	20	4	23	—	319	24
Heliopolis ..	90,600	—	—	102	10	1	—	164	14	5	—	20	4	6	3	298	31
Zeitoun ..	87,500	—	—	32	4	2	1	133	14	—	—	17	5	28	27	212	51
Abbassia ..	133,000	—	—	64	15	3	1	320	55	—	—	55	13	33	1	505	91
Ezbekia ..	107,900	—	—	72	9	1	—	148	12	—	—	20	2	12	5	253	28
Rod-el-Farag ..	183,700	—	—	100	9	2	—	380	32	—	—	34	11	47	18	565	70
Hadayeq Shubra...	89,000	—	—	41	2	1	—	194	10	—	—	25	3	15	2	276	17
Shubra ..	121,400	—	—	47	4	1	—	42	31	—	—	33	11	42	23	166	79
Sharabia ..	77,000	—	—	67	7	3	—	213	15	—	—	90	9	103	56	426	85
Gamalia ..	118,000	—	—	88	10	2	—	223	17	1	—	22	3	37	5	373	35
Bab-el-Shaaria ..	131,600	—	—	63	8	3	—	216	27	—	—	29	6	42	3	353	44
Abdin ..	93,300	—	—	52	9	1	—	127	10	—	—	24	5	13	8	217	32
Mouski ..	77,600	1	—	38	5	1	—	112	11	1	—	16	3	19	7	188	26
Darb-el-Ahmar ..	114,300	—	—	65	14	3	—	159	14	—	—	31	3	13	3	241	34
Khalifa ..	124,900	—	—	57	8	1	—	212	22	—	—	20	2	15	5	316	33
Sayeda I ..	108,500	—	—	54	16	1	—	142	12	—	—	28	9	13	2	238	39
Sayeda II ..	99,500	—	—	43	5	2	—	173	10	2	—	22	5	13	1	255	21
Boulaq I ..	68,000	—	—	42	12	—	—	98	7	—	—	16	4	17	8	143	31
Boulaq II ..	75,500	—	—	50	3	—	—	94	8	—	—	16	4	13	9	173	24
Adawia ..	68,700	—	—	42	5	—	—	108	7	—	—	14	6	16	9	180	27
Old Cairo ..	110,400	—	—	36	5	—	—	160	10	1	—	21	5	42	30	260	50
Helwan ..	49,500	—	—	5	2	—	—	32	3	—	—	3	—	8	—	48	5
Maadi ..	46,000	—	—	22	—	1	—	49	3	—	—	4	—	2	1	78	4
TOTAL ..	2,266,900	1	—	1,274	167	32	2	3,711	359	10	—	530	117	585	230	6,143	885

TABLE NO. 192.— DISTRICT DISTRIBUTION OF TYPHOID FEVER CASES AND DEATHS, 1950.

District	Mid-year Population	Number of Cases	Case-rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate per cent
Qubba ... ..	91,000	211	·431	15	·164	7·109
Heliopolis ... ..	90,600	164	1·810	14	·154	8·536
Zeitoun ... ..	87,500	133	·152	14	·16	10·526
Abbassia ... ..	133,000	320	2·406	55	·413	17·156
Ezbekia ... ..	107,900	148	1·371	12	·111	8·108
Rod-el-Farag ... ..	183,700	380	2·068	32	·174	8·042
Hadayeq Shubra	80,000	191	2·179	10	·116	5·154
Shubra ... ..	121,400	42	·345	31	·255	73·809
Sharabia ... ..	77,000	213	2·766	15	·194	7·042
Gamalia ... ..	118,000	223	1·889	17	·144	7·623
Bab-el-Shaaria ... ..	131,600	216	1·641	27	·205	12·5
Abdin ... ..	93,300	127	1·361	10	·107	7·874
Mouski ... ..	77,600	112	1·443	11	·141	9·821
Darb-el-Ahmar	114,300	159	1·391	14	·122	8·918
Khalifa ... ..	124,900	213	1·705	22	·176	10·328
Sayeda I ... ..	108,500	142	1·169	12	·110	8·450
Sayeda II ... ..	99,500	173	1·738	10	·100	5·780
Boulaq I ... ..	68,000	98	1·441	7	·102	7·142
Boulaq II ... ..	75,500	94	1·245	8	·105	8·500
Adawia ... ..	68,700	108	1·572	7	·101	6·481
Old Cairo ... ..	110,400	160	1·449	10	·090	6·250
Helwan ... ..	49,500	32	·646	3	·080	9·375
Maadi ... ..	46,000	49	1·065	3	·065	6·122
<b>TOTAL ... ..</b>	<b>2,266,900</b>	<b>3,711</b>	<b>1·637</b>	<b>359</b>	<b>·158</b>	<b>9·183</b>

TABLE NO. 193.— DISTRICT DISTRIBUTION OF TYPHUS CASES AND DEATHS, 1950

District	Population	Number of Cases	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate percent
Qubba... ..	91,000	3	·032	—	—	—
Heliopolis ... ..	90,600	1	·011	—	—	—
Zeitoun ... ..	87,500	2	·022	1	·011	50
Abbassia ... ..	133,000	3	·022	1	·007	33·33
Ezbekia ... ..	107,900	1	·009	—	—	—
Rod-el-Farag ... ..	183,700	2	·010	—	—	—
Hadayeq Shubra	89,000	1	·011	—	—	—
Shubra ... ..	121,400	1	·008	—	—	—
Sharabia ... ..	77,000	3	·038	—	—	—
Gamalia ... ..	118,000	2	·006	—	—	—
Bab-el-Shaaria ... ..	131,600	3	·022	—	—	—
Abdin ... ..	93,300	1	·010	—	—	—
Mouski ... ..	77,600	1	·012	—	—	—
Darb-el-Ahmar ... ..	114,300	3	·026	—	—	—
Khalifa ... ..	124,900	1	·008	—	—	—
Sayeda I ... ..	108,500	1	·009	—	—	—
Sayeda II ... ..	99,500	2	·020	—	—	—
Boulaq I ... ..	68,000	—	—	—	—	—
Boulaq II ... ..	75,500	—	—	—	—	—
Adawia ... ..	68,700	—	—	—	—	—
Old Cairo ... ..	110,400	—	—	—	—	—
Helwan ... ..	49,500	—	—	—	—	—
Maadi ... ..	46,000	1	·021	—	—	—
<b>TOTAL ... ..</b>	<b>2,266,900</b>	<b>32</b>	<b>·014</b>	<b>2</b>	<b>0·008</b>	<b>6·25</b>



TABLE NO. 194.—DISTRICT DISTRIBUTION OF DIPHTHERIA CASES AND DEATHS, 1950.

District	Population	Number of Cases	Case-rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate per cent
Qubba ... ..	91,000	20	·219	4	·0·3	20·
Heliopolis ... ..	90,600	20	·220	4	·014	20·
Zeitoun ... ..	87,500	17	·194	5	·051	29·41
Abbassia ... ..	133,000	55	·411	13	·096	23·60
Ezbekia ... ..	107,900	20	·1·5	2	·018	10·
Rod-el-Farag ...	183,700	34	·185	11	·059	32·32
Hadayeq Shubra	89,000	25	·280	3	·033	12·
Shubra ... ..	121,400	33	·271	11	·0·90	33·33
Sharabia ... ..	77,000	40	·519	9	·116	22·50
Gamalia ... ..	118,000	22	·186	3	·025	13·63
Bab-el-Shaaria ...	131,600	29	·220	6	·044	20·68
Abdin ... ..	93,300	21	·2·7	5	·053	20·83
Mouski ... ..	77,600	16	·206	3	·038	18·75
Darb-el-Ahmar ...	114,360	31	·271	3	·026	9·67
Khalifa ... ..	124,900	20	·160	2	·010	10·00
Sayeda I ... ..	108,500	28	·258	9	·090	32·14
Sayeda II ... ..	99,500	22	·221	5	·050	22·72
Boulaq I ... ..	68,000	16	·235	4	·018	25·00
Boulaq II ... ..	75,500	16	·213	4	·053	25·00
Adawia ... ..	68,700	14	·200	6	·085	42·85
Old Cairo ... ..	110,400	21	·190	5	·045	23·80
Helwan ... ..	409,500	3	·080	—	—	—
Maadi ... ..	46,000	4	·086	—	—	—
<b>TOTAL ... ..</b>	<b>2 266,900</b>	<b>530</b>	<b>·233</b>	<b>117</b>	<b>·051</b>	<b>22·07</b>

TABLE NO. 195.—DISTRICT DISTRIBUTION OF MEASLES CASES AND DEATHS, 1950.

District	Population	Number of Cases	Case-rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate per cent
Qubba... ..	91,000	23	·252	—	—	—
Heliopolis ... ..	90,600	6	·066	3	·033	50·
Zeitoun ... ..	87,500	28	·032	27	·308	96·43
Abbassia ... ..	133,000	33	·248	7	·052	21·21
Ezbekia ... ..	107,900	12	·111	5	·046	41·66
Rod-el-Farag ...	183,700	49	·266	18	·097	36·73
Hadayeq Shubra	89,000	15	·168	2	·022	13·33
Shubra ... ..	121,400	43	·354	23	·189	53·48
Sharabia ... ..	77,000	103	·337	54	·701	52·42
Gamalia ... ..	118,000	37	·313	5	·042	13·51
Bab-el-Shaaria ...	131,600	42	·319	3	·022	7·14
Abdin ... ..	93,300	13	·139	8	·085	61·53
Mouski ... ..	77,600	19	·244	7	·090	36·84
Darb-el-Ahmar ...	114,300	13	·113	3	·026	23·07
Khalifa ... ..	124,900	25	·200	5	·040	20·00
Sayeda I ... ..	108,500	13	·119	2	·018	15·38
Sayeda II ... ..	99,500	13	·130	1	·010	7·69
Boulaq I ... ..	68,000	17	·25	8	·117	47·05
Boulaq II ... ..	75,500	13	·170	9	·119	69·23
Adawia ... ..	68,700	16	·232	9	·131	56·25
Old Cairo ... ..	110,400	42	·380	30	·271	71·42
Helwan ... ..	49,000	8	·161	—	—	—
Maadi ... ..	46,000	2	·043	1	·021	50·00
<b>TOTAL ... ..</b>	<b>2 266,900</b>	<b>585</b>	<b>·258</b>	<b>230</b>	<b>·101</b>	<b>39·31</b>

**TABLE No. 196.— DISTRICT DISTRIBUTION OF CEREBRO SPINAL FEVER  
CASES AND DEATHS, 1950.**

District	Population	Number of Cases	Case rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate per cent
Qubba ... ..	91,000	62	·681	5	·054	8·06
Heliopolis ... ..	90,600	102	1·125	10	·110	9·80
Zeitoun ... ..	87,500	32	·365	4	·045	12·5
Abbassia ... ..	133,000	94	·706	15	·112	15·95
Ezbekia ... ..	107,900	72	·667	9	·083	12·5
Rod-el-Farag ... ..	183,700	100	·543	9	·049	9·00
Hodayeq Shubra	89,000	41	·460	2	·022	4·87
Shubra ... ..	121,400	47	·387	4	·032	8·51
Sharabia ... ..	77,000	67	·870	7	·090	10·44
Gamalia ... ..	118,000	88	·745	10	·084	11·36
Bab-el-Shaaria ... ..	131,600	63	·478	8	·060	12·69
Abdin ... ..	93,300	52	·557	9	·096	17·30
Mouski ... ..	77,600	38	·489	5	·064	13·15
Darb-el-Ahmar ... ..	114,300	65	·568	14	·122	21·53
Khalifa ... ..	124,900	57	·546	8	·064	14·03
Sayeda I ... ..	108,500	54	·479	16	·147	29·62
Sayeda II ... ..	99,500	43	·432	5	·050	11·62
Boulaq I ... ..	68,000	42	·617	12	·176	28·57
Boulaq II ... ..	75,500	42	·611	5	·072	11·90
Adawia ... ..	68,700	50	·662	3	·039	6·00
Old Cairo ... ..	110,400	36	·326	5	·045	13·88
Helwan ... ..	49,500	5	·101	2	·040	40·00
Maadi ... ..	46,000	22	·478	—	—	—
<b>TOTAL ... ..</b>	<b>2,266,900</b>	<b>1,274</b>	<b>·562</b>	<b>167</b>	<b>·078</b>	<b>13·11</b>

**TABLE No. 197. —DISTRICT DISTRIBUTION OF SCARFET FEVER CASES AND DEATHS 1950**

District	Population	Number of Cases	Case-rate per 1000 of Population	Number of Deaths	Death-rate per 1000 of Population	Case mortality rate per cent
Qubba ... ..	91,000	—	—	—	—	—
Heliopolis ... ..	90,600	5	·055	—	—	—
Zeitoun ... ..	87,500	—	—	—	—	—
Abbassia ... ..	133,000	—	—	—	—	—
Ezbekia ... ..	107,900	—	—	—	—	—
Rod-el-Farag ... ..	183,700	—	—	—	—	—
Hodayeq Shubra	89,000	—	—	—	—	—
Shubra ... ..	121,400	—	—	—	—	—
Sharabia ... ..	77,000	—	—	—	—	—
Gamalia ... ..	118,000	1	·008	—	—	—
Bab-el-Shaaria ... ..	131,600	—	—	—	—	—
Abdin ... ..	93,300	—	—	—	—	—
Mouski ... ..	77,600	1	·001	—	—	—
Darb-el-Ahmar ... ..	114,300	—	—	—	—	—
Khalifa ... ..	124,900	—	—	—	—	—
Sayeda I ... ..	108,500	—	—	—	—	—
Sayeda II ... ..	99,500	2	·020	—	—	—
Boulaq I ... ..	68,000	—	—	—	—	—
Boulaq II ... ..	75,500	—	—	—	—	—
Adawia ... ..	68,700	—	—	—	—	—
Old Cairo ... ..	110,400	1	·009	—	—	—
Helwan ... ..	49,500	—	—	—	—	—
Maadi ... ..	46,000	—	—	—	—	—
<b>TOTAL ... ..</b>	<b>2,266,900</b>	<b>10</b>	<b>·004</b>	<b>—</b>	<b>—</b>	<b>—</b>



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